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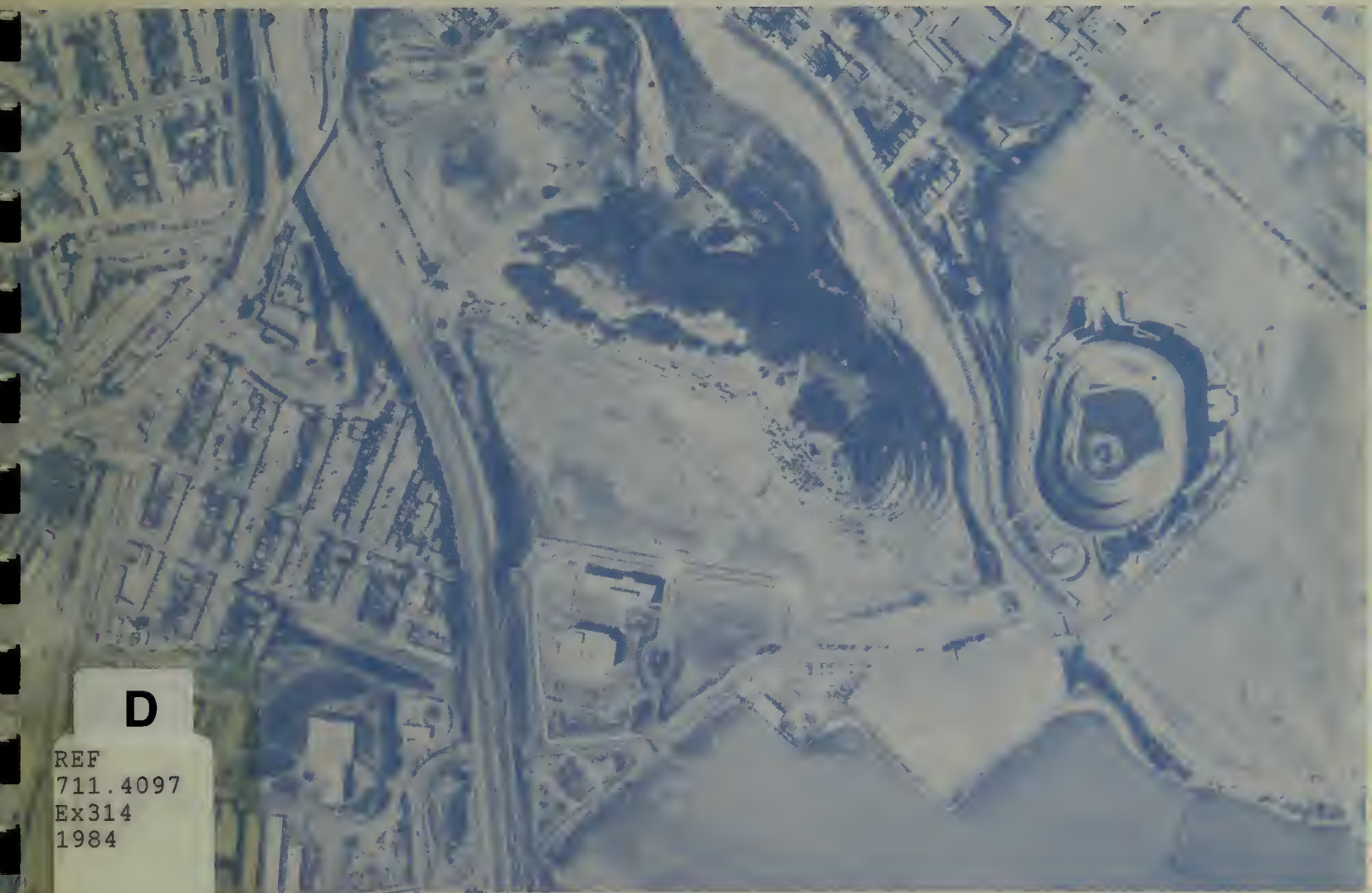
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EXECUTIVE PARK DEVELOPMENT PLAN AMENDMENT

SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

81.197E

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Ex314
1984

PUBLICATION DATE: DECEMBER 28, 1984

PUBLIC HEARING DATE: JANUARY 31, 1985

PUBLIC COMMENT PERIOD: DECEMBER 28, 1984 THROUGH FEBRUARY 17, 1985

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DATE: December 28, 1984

TO: Distribution List for the Executive Park Development Plan Amendment

FROM: Alec S. Bash, Environmental Review Officer

RE: Request for the Final Environmental Impact Report for the Executive Park Development Plan Amendment

This is the draft of the Environmental Impact Report for the Executive Park Development Plan Amendment. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Summary of Comments and Responses" which will contain a summary of all relevant comments on this draft EIR and our responses to those comments. It may also specify changes to this draft EIR. Those who testify at the hearing on the draft will automatically receive a copy of the Comments and Responses document along with notice of the date reserved for certification (in this case, probably about 8 to 10 weeks after the hearing on the draft); others may receive such copies and notice on request or by visiting our office. This draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting and certified as a final EIR.

After certification, we will modify the draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final Environmental Impact Report. The final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one rather than two documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the draft EIR, you will technically have a copy of the final EIR.

We are aware that many people who receive the draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the final EIR to private individuals only if they request them.

If you want a copy of the final EIR, please so indicate in the space provided on the next page and mail the request to the Office of Environmental Review within two weeks after certification of the EIR. Any private party not requesting a final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the final EIR.

Thank you for your interest in this project.



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Office of Environmental Review
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Attn: Paul Rosetter, OER Coordinator
81.197E Executive Park Development
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REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

To: Department of City Planning,
Office of Environmental Review

Please send me a copy of the Final EIR.

Signed: _____

Print Your Name and Address Below

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I. INTRODUCTION AND BACKGROUND

A. INTRODUCTION

This document is a reissued subsequent EIR for the San Francisco Executive Park Development Plan Amendment. A previous subsequent Draft EIR on the Development Plan Amendment was published on September 9, 1983, and a public hearing was held on October 13, 1983. Following that hearing, preparation of responses to all oral and written comments on the September 9, 1983 Draft EIR was in progress when the San Francisco Department of City Planning requested that the project sponsor, Campeau Corporation California, revise the building massing, site plan layout, amount of housing and parking, phasing, and design characteristics of the project analyzed in the 1983 EIR. In response to these requests, Campeau Corporation California reevaluated the 1983 development plan. In February and April 1984, Campeau published Development Plan Addenda, which, together, comprise the Development Plan Amendment that is the subject of this EIR. A new EIR is being reissued because the Office of Environmental Review (OER) has determined that the September 1983 Draft EIR would need to be revised to (1) incorporate more recent methods of environmental analysis, (2) incorporate changes to the 1983 development plan, and (3) update the description of the setting conditions.

B. PROJECT HISTORY

Since 1976, the San Francisco Executive Park site has been subject to several development plans, environmental documents, and City Planning Commission actions. These actions began with the San Francisco Executive Park Final EIR, which was certified by the City Planning Commission on August 12, 1976 by Resolution No. 7542 (EE 75.198, State Clearinghouse Number 76070571). The 1976 Final EIR analyzed a project proposed by the Yerby Corporation. The Yerby project included development of 853,000 sq. ft. of office space, 174,000 sq. ft. of hotel/meeting space, 75,000 sq. ft. of retail space, and parking for about 3,900 vehicles; a total of 1.1 million gross sq. ft. of floor area (exclusive of parking). In addition to certification of the Final EIR, the City Planning Commission undertook several actions with respect to the Yerby project. To permit development

I. Introduction and Background

of the proposed commercial uses, the Commission revised the text and maps of the South Bayshore Plan, Open Space and Recreation Element, and Transportation Element of the San Francisco Comprehensive Plan (Resolution No. 7543, August 12, 1976). The Commission also approved a zoning reclassification on a portion of the site from RH-1 and M-1 to C-2 district and a height district reclassification on a portion of the site from 40-X to 230-G (Resolution No. 7546, August 26, 1976).

By its Resolution No. 7547 (August 26, 1976), the Planning Commission required the Yerby Corporation to prepare a detailed development plan and requested that Department of City Planning (DCP) staff review any changes to the development plan and all building permit applications for the site. Resolution No. 7547 further directed DCP staff to submit to the Commission for discretionary review any change or building permit application that might have detrimental effects on the environment or be in conflict with the Comprehensive Plan.

On August 24, 1978, the Yerby Corporation made an informational presentation to the City Planning Commission of the development plan required by Resolution No. 7547. The Department of City Planning staff report prepared for this presentation indicated that the physical design met most of staff's concerns, but called for ongoing review to monitor the progress of mitigation measures. No official action was taken by the Planning Commission. Campeau Corporation California purchased the Executive Park site in December 1979. Under provisions of Resolution No. 7547, Campeau Corporation requested and the City Planning Commission approved two changes to the 1978 Yerby Development Plan, one on December 15, 1980 (Resolution No. 9089) and another on August 6, 1981 (no resolution action). These two design changes slightly altered the locations, heights or amounts of proposed uses; however, the mix and total amount of square footage of proposed uses remained approximately the same as the 1.1 million sq. ft. analyzed in the 1976 Final EIR and proposed in the 1978 Yerby Development Plan. See Appendix A, p. A-2 and Table A-1, p. A-4 for a chronology of City Planning Commission actions concerning the Executive Park site.

The City Planning Commission has reviewed and granted discretionary review approval for four office buildings and a restaurant under the 1978 Yerby Development Plan. Building permits have been approved for all four of the office buildings. Two buildings have been constructed, Office Building 1 (OB 1) and Office Building 2 (OB 2). A building permit has

I. Introduction and Background

been issued for Office Building 3 (OB 3) and a site permit has been issued for Office Building 4 (OB 4), permit numbers 474539 and 506576, respectively. The building pad has been completed for OB 3, with construction expected to begin in December 1984. Groundbreaking occurred on December 5, 1984. A building permit has not been issued for the proposed restaurant on Alana Way.

In 1983, Campeau Corporation California proposed a revised development plan, which would have amended the 1978 Yerby Development Plan by adding office space and a total of 234,000 sq. ft. of hotel space, and introducing housing as a new use. Because of proposed changes to the development plan involving substantially more floor area and changes in setting conditions that were analyzed in the 1976 Final EIR, the Office of Environmental Review determined that preparation of a subsequent EIR was required for the 1983 development plan (Section 15162 of the State EIR guidelines).

As discussed on p. 1, Campeau Corporation California prepared two addenda to the 1983 development plan in response to design revisions requested by the Department of City Planning. Those addenda have resulted in the 1984 Development Plan Amendment, which is the subject of this EIR. The 1984 Development Plan proposes the same uses and square footages as the 1983 plan, but differs in design and location of the uses. As with the 1983 plan, the 1984 Development Plan Amendment would contain total new construction of about 1.85 million gross sq. ft. of floor area, exclusive of the 499,000 sq. ft. of floor area approved for development in OB 1 - OB 4 and in the Alana Way restaurant.

Differences between the 1983 and 1984 plans include:

- There would be 600 housing units in the 1984 Development Plan Amendment, compared to 500 units in the 1983 plan. Total housing square footage would not change; the housing units in the 1984 Development Plan Amendment would be smaller. No housing would be built on top of the garage.
- The 1984 Development Plan Amendment would have approximately 5,270 parking spaces, about 150 more than in the 1983 plan, to serve the additional housing.
- The 1984 Development Plan Amendment would include a larger, more defined outdoor Town Center.
- The 350-room hotel would be located east of the existing OB 1, instead of the north central portion of the site.
- There would be no funicular or hillside restaurant in the 1984 Plan Amendment.
- The project area would be expanded from 50 to 60 acres.

See Chapter III., Project Description, p. 21 for a detailed description of the 1984 Development Plan.

The 1983 development plan is no longer proposed by Campeau, and has received no formal action by the City Planning Commission. The 1983 plan will not be considered further in this document, except as an alternative to the proposed project (see Section X, Alternative E, pp. 208-212 for a detailed summary of the 1983 plan).

The basis of analysis in this EIR will be the proposed 1984 Development Plan currently being requested by Campeau, which amends the 1978 Yerby Plan.

COMPARISON OF 1978 YERBY PLAN TO 1984 DEVELOPMENT PLAN AMENDMENT

A comparison of full buildout of the 1978 Yerby Plan (including the 1980 and 1981 changes) and full buildout of the 1984 Development Plan Amendment proposed by Campeau is shown below; see also Appendix A, Table A-2, p. A-5).

<u>Proposed Use</u>	1978 Yerby Development Plan* (including 1980 and 1981 Amendments) (sq. ft.)	Total 1984 Executive Park Development Plan Amendment (sq. ft.)
Office:	839,000	1,644,000
Hotel:	239,000 (420 rooms)	234,000 (350 rooms)
Retail/Restaurant:	33,000	50,000
Housing:	<u>0</u>	<u>425,000</u>
TOTAL:	1,111,000	2,353,000
PARKING:	2,475 (spaces)	5,300 (spaces)

* The 1978 Plan differs from the project that was analyzed in the 1976 Final EIR. The project analyzed in the Final EIR included 863,000 sq. ft. of office space; 174,000 sq. ft. of hotel/convention space; 75,400 sq. ft. of retail space; and about 3,900 parking spaces. See also Appendix A, Table A-2, p. A-5.

For consistency in nomenclature and to distinguish the currently proposed project from the approved 1978 Yerby Development Plan, the 1980 and 1981 design changes, and the 1983 plan, the following titles will be used throughout this EIR:

- Proposed Project ("project") will refer to the proposed 1984 Development Plan Amendment, consisting of 1.85 million sq. ft. of development (exclusive of OB 1 - OB 4 and the Alana Way restaurant); see Figure 1, p. 23.

I. Introduction and Background

- Project area will refer to the 60-acre site of the 1984 Development Plan Amendment, generally located north and east of Executive Park Blvd. North, except for the hotel, which would be located south of Executive Park Blvd. North between OB 1 and OB 3. The project area does not include the sites of the Alana Way restaurant or OB 1 - OB 4, which, except for OB 4, are located south of Executive Park Blvd. North; see Figure 2, p. 26.
- Executive Park site (or "project site") will denote the entire 71-acre site, including OB 1 - OB 4, and the Alana Way restaurant.
- 1978 Development Plan will refer to the 1978 Yerby Development Plan that was presented to the City Planning Commission (no resolution action) and the approved changes to that Plan requested by Campeau Corporation in 1980 (Resolution No. 9089) and 1981 (no resolution action).
- The Executive Park Development Plan (Full-Buildout Plan) will indicate the new total development plan for the Executive Park site, should the proposed 1984 Amendment be approved. It would consist of the 1.85 million sq. ft. of floor area analyzed as the "proposed project" in this EIR, and the 499,000 sq. ft. of office and restaurant space already approved in OB 1 - OB 4 and the Alana Way restaurant, a total of 2.35 million sq. ft. of development at the Executive Park site. About 5,300 parking spaces would be provided in the Full-Buildout Plan.

The reader may occasionally need to refer back to the definitions above during his or her review of the EIR.

C. APPROACH TO ANALYSIS

Total square footages and uses of the proposed 1984 Development Plan Amendment (hereinafter referred to as the proposed project) have been determined; however, the precise design and spatial arrangement of proposed uses are not known at this time. Because the design of the proposed project has been conceived at a conceptual level of detail, this EIR presents a "master plan" approach to analyze impacts and to define mitigation measures. This type of approach analyzes the square footages and uses of the proposed project, but reserves future review of specific design and site layout features when building permit approvals for each building are sought by the sponsor. Such later review of design elements could be required by the City Planning Commission as a condition of project approval.

The proposed project would be built in six phases over a ten-year buildout period. Impacts have been analyzed for full project buildout, except when the introduction of an individual phase of development would change substantially the nature or magnitude of an impact. A "full buildout analysis" describes the project as if all development would occur at one

point in time when in actuality the project would be developed incrementally over ten years. Therefore, the impact discussion does not fully account for adjustments or changes in market conditions or public policy during development of project phases.

Buildings that have been approved as part of the 1978 Development Plan are not considered part of the proposed project or as part of the project area. OB 1 and OB 2, which have been constructed and occupied, are considered part of the setting. OB 3, OB 4 and the Alana Way restaurant, which have been approved but not yet constructed, are analyzed as generators of cumulative impacts associated with full buildout of the Executive Park site. These buildings are not formally a part of the proposed 1984 Development Plan Amendment as they would be constructed whether or not the Amendment were approved.

Where appropriate and as provided for in Section 15150 of the State EIR guidelines, information has been incorporated by reference from the 1976 Final EIR. Applicable mitigation measures identified in the 1976 EIR or required as part of approval of the 1978 Development Plan would also be required for the proposed project, and are included in Section VI., Mitigation Measures, pp. 164-187. Those applicable measures which have been implemented as part of development of OB 1 and OB 2 are included in the description of setting conditions. Applicable measures which are required, but have not yet been implemented, are included in Section VI. and are considered as measures which would reduce the impacts of full project buildout.

Responses to oral and written comments made at the October 9, 1983 hearing on the September 9, 1983 Draft Subsequent EIR which are applicable to the 1984 Development Plan Amendment have been incorporated into the text and analysis of this EIR, but are not formally acknowledged or identified. Those comments, as well as the comments on the current (reissued) EIR, will be responded to explicitly in a formal Comments and Responses document which will be used as a basis for certification of the Final EIR.

II. SUMMARY

A. PROJECT DESCRIPTION

This document is a reissued EIR for the 1984 San Francisco Executive Park Development Plan Amendment. Two previous EIRs analyzed 1.1 million square feet of office, hotel, and retail proposed by the Yerby Corporation (the 1976 San Francisco Executive Park Final EIR (EE75.198)), and 2.3 million square feet of office, hotel, retail and residential proposed by Campeau Corporation California (the 1983 Draft Subsequent EIR on the proposed 1983 plan). The proposed project differs from the Yerby Plan analyzed by the 1976 EIR in that it includes housing and additional office space, and differs from the project analyzed by the 1983 EIR in its building massing, site plan layout, amount of housing and parking, phasing, and design characteristics. (See I. Introduction and Background, pp. 1-6). Compared to the 1983 plan, the 1984 Development Plan Amendment proposes 100 more housing units, about 150 more parking spaces, a more defined Town Center, relocation of the hotel, and exclusion of the previously proposed funicular and hillside restaurant, while keeping developed square footage unchanged.

Campeau Corporation California acquired the Executive Park site from the Yerby Corporation in December 1979. Campeau was not satisfied with the scale, design or mix of uses in the Yerby Plan and has proposed two amendments to the 1978 Yerby Development Plan, in 1983 and 1984. The proposed 1984 Development Plan Amendment is the subject of this EIR.

Campeau Corporation California proposes to develop the project area into office, residential, hotel/meeting, retail, and restaurant space. The project is intended to provide employment opportunities outside of the Downtown, attract new businesses to San Francisco, and retain those that might be considering leaving the City for a more convenient suburban location. The project is intended also to provide residences near sources of employment with retail support, and to create a balanced urban center that will encourage 24-hour activity at the site. The 60-acre site is on portions of Lots 75, 85, 86 and 87 in Assessor's Block 4991. It is located at the southeastern boundary of the City and County of San Francisco near Candlestick Park Stadium. The project area is bounded

on the west by US 101 (the Bayshore Freeway); on the south by Harney Way; on the east by Jamestown Ave. Extension, and on the north by Bayview Hill.

The project would consist of approximately 1.15 million sq. ft. of office space, 425,000 sq. ft. of residential use (600 units), 234,000 sq. ft. of hotel (350 rooms) and meeting space, 45,000 sq. ft. of restaurant and retail space and 4,070 parking spaces, a total of about 1.85 million gross sq. ft. of floor area (exclusive of parking). The proposed project would represent the same square footage as that proposed by Campeau under the 1983 plan.

The proposed project would be constructed in six phases over a ten-year period beginning in 1986. Construction would occur in three major areas of the site. (See Figures 1 and 2 on pp. 23 and 26 for the boundaries of these areas.) Area 1, situated on the southern portion of project area, north of Harney Way, would contain the hotel/meeting facility with approximately 500 parking spaces underneath. Of these, approximately 360 spaces would be new and approximately 140 would replace existing surface spaces. The height of the hotel/meeting building would be 80 feet. Area 2 is in the upper northern and central portion of the project area, separated from Area 1 by Executive Park Blvd. North. Offices, a Town Center, retail and restaurant space, and parking facilities (approximately 2,810 new spaces) would be constructed in this area. The height of the buildings in Area 2 would range from 80 to 200 ft. Area 3 would be in the far eastern portion of the project area. Area 3 would be developed into 600 housing units with 900 parking spaces. The heights of the housing structures would range from about 40 ft. to 80 ft.

The site layout is intended by the project architect to preserve Bayview Hill as a dominant feature of the site, with Areas 2 and 3 stepped up into the hillside. Precise exterior facade treatments are unknown at this time.

The principal vehicular access to the project area from the north and south would be from the US 101 exits at Beatty Avenue and Harney Way, respectively. For non-freeway traffic, eastbound vehicles could use Beatty Ave. or Blanken Ave.; westbound traffic (from Bayview Hunters Point) would use Harney Way via Jamestown Ave. Extension.

Proposed hillside planting would be a combination of trees, cascading plant materials and large shrubs. A hillside trail system, accessible to the public, would be provided to link Bayview Hill and Candlestick Point State Recreation Area. Landscaping would be planted concurrently with each building phase.

B. ENVIRONMENTAL EFFECTS

A Final Initial Study for the project, published September 24, 1982, determined that the proposed project would have no significant environmental effect in the following areas: relocation of residents or businesses, airport and construction noise, public services and utilities, hazards, and historic and archaeological resources; these issues were focused out of the EIR and require no further discussion (see Appendix B, pp. A-6 to A-21).

Land Use and Zoning (see Section V, p. 75). The project would replace 50 acres of vacant land with 24 acres of office, residential, retail and restaurant uses and 26 acres of publicly accessible open space, and develop 10 acres of land currently approved for parking into a hotel/meeting facility. Project residents, office workers and hotel visitors could increase use of existing and proposed portions of Candlestick Point State Recreation Area. The project area is currently in the 40-X and 230-G Height and Bulk districts (see Figure 7, p. 40). The sponsor would request a reclassification to the following Height and Bulk districts: 100-G, 140-H, 165-H, and 200-I for office/retail facility, 80-X for the parking structure, 60-X and 80-X for residential units, and 80-X for the hotel. The project would require a text amendment to the South Bayshore Plan of the Comprehensive Plan to permit residential use on the site, but would conform or be responsive to the San Francisco Comprehensive Plan's Environmental Protection Element, Commerce and Industry Element, Residential Element and Amended Elements for Transportation and Recreation and Open Space.

Visual Features (see Section V, p. 82). The project would alter the existing visual character of the site through grading and new building construction. It would become the dominant visual element on the site, with buildings ranging in height from 40 ft. to 200 ft. The project area would no longer appear as vacant open space. Approximately 26 acres of the upper slopes of Bayview Hill would remain undeveloped open space with hillside trails accessible to the public.

Shadows (see Section V., p. 87). The proposed hotel would shadow a portion of the Candlestick Point State Recreation Area. (This area is not subject to the provisions of Proposition K, which governs shadows on City-owned parks.) Some of the housing in the eastern portion of the project is proposed to be in the 60-X and 80-X height and bulk districts, and would be subject to the provisions of Proposition K. However, this housing

would not add any new shadows to those already cast on the eastern strip of City-owned Bayview Park by proposed housing in the 40-X height and bulk district, which would be exempt from the provisions of Proposition K.

Wind (see Section V, p. 91). Wind speeds discussed in this summary subsection refer to average summer month afternoon winds, which are the highest winds in San Francisco.

Overall, the project would have little or no effect on existing average wind speeds around OB 1 and OB 2, or at off-site locations including Candlestick Park Stadium, Little Hollywood, Bayview Hill Park, and the Candlestick Point State Recreation Area.

Existing average west wind speeds would substantially decrease in the northern and eastern portions of the site as a result of the project. The presence of the 80-ft.-tall hotel would probably reduce winds in Little Hollywood and in the Candlestick Point Recreation Area. Northwest winds experienced on pedestrian walkways and entrances to office buildings in Area 2 and in the Area 3 eastern housing complex would decrease substantially. Wind speeds at the western edge of the Candlestick Point State Recreation Area would decrease slightly. Under southwest wind conditions, average wind speeds in the northern and eastern portions of the site would decrease, except in the Town Center plaza, where average summer afternoon winds would increase slightly. Winds at Bayview Hill Park would increase slightly. The project would slightly decrease average winds in Candlestick Park Stadium. The project would have no effect on existing southwest winds in surrounding areas.

Transportation, Circulation and Parking (see Section V, p. 93). Construction truck traffic would result in a slight lessening of the capacities of access streets and haul routes because of the slower movements and large turning radii of the trucks. During later stages of construction (Phases Four - Six), truck traffic during peak hours could be an impact on the internal street system serving the project area (Harney Way, Alana Way, and Executive Park Blvd.), because of increased traffic volume from project development. Truck volumes during Phases Four through Six are expected to be low (about nine trips per hour average).

Shortly before the start of construction, the project contractor and the Department of Public Works would determine haul truck routes that would minimize the impacts of construction truck traffic. Blanken Ave. has a truck restriction in effect and would not be used as a haul route during project construction.

At completion, the proposed project would generate about 15,800 daily vehicle trip ends (vte), of which about 2,450 would occur during the p.m. peak hour. Daily Muni person trips generated by the project would be 1,760, of which 270 would occur during the p.m. peak hour.

On-site cumulative development (OB 3, OB 4, and the restaurant on Alana Way) would be expected to generate about 3,600 vte per day (670 peak hour vte) by 1985. Local cumulative development in the proposed Southern Pacific light-industrial research and development park in Brisbane would generate a total of about 42,000 vte per day, of which about 10,800 vte (1,500 peak-hour vte) would be expected to use the local street system (Tunnel Ave., Beatty Ave., Alana Way and Harney Way). (See p. 98.)

Without suggested improvements (see Mitigation Measures, pp. 170-171 and Table 16, p. 171), three intersections (Alana Way / Beatty Ave; Harney Way / Alana Way; and Alana Way / Executive Park Blvd.) would operate at Level of Service F. These improvements have not been agreed to by the project sponsor and there is no current funding program, private or public, available to ensure that they will be constructed.

Project traffic may cause an increase of 870 peak-hour vte on local streets; as much as one-third of this traffic could use Blanken Ave. This increase from the project would be well within the functional capacity of Blanken Ave.; however, the increase in traffic volumes would be noticeable to neighborhood residents, and the street would function as an arterial street connecting neighborhoods, rather than solely as a residential collector street.

Traffic from the project and from on-site (OB 3 and OB 4) and local cumulative development would cause project area intersections to operate at Level of Service D or better with improvements (see Table 6, p. 104). On the basis of the 1983 schedule for the stadium, there would be an average of eight days per year on which Candlestick Park traffic would overlap with p.m. peak-hour project traffic; this would disrupt traffic operations in the vicinity of the project area.

US 101 currently operates at Level of Service D southbound in the p.m. peak hour (northbound in the a.m. peak hour). On-site cumulative development (OB 3, OB 4 and the Alana Way restaurant), local cumulative development in Brisbane, and regional cumulative development along the Bayshore Freeway (US 101) corridor and in downtown San

Francisco would combine to cause freeway operations to reach the upper ranges of Level of Service E (capacity) conditions southbound on US 101 during the p.m. peak period in the year 2000. Peak-of-the-peak conditions (now less than 15 minutes) would expand to fill the peak hour, extending to a total of about 75 minutes. There are no currently funded programs which would effectively mitigate the increase in congestion on US 101.

Air Quality (see Section V, p. 117). The major contributor of air pollutant emissions by the project would be project-generated traffic. Neither the project nor other development in the project vicinity would conflict directly with the control strategies of the Bay Area Air Quality Plan. The project would generate a maximum of 0.2% of total regional air pollutant emissions. No violations of any applicable standards are predicted to occur, except possibly for particulates (TSP), during construction.

The highest predicted carbon monoxide concentrations, up to 59% of the standard, for the project-plus-cumulative case, would occur along the west side of US 101 between Blanken Ave. and Alana Way. The largest percent increase due to the project, 41%, would occur along Alana Way between Thomas Mellon Drive and Executive Park Blvd. West.

Noise (see Section V, p. 122). In the areas nearest to US 101, increased noise levels produced by traffic on the local streets would be masked by traffic on US 101. In the areas located farther from US 101, the increased local traffic volumes would dominate the noise environment. The largest difference in noise predicted for the project receptor points analyzed is one dBA (which is less than the minimum perceptible to the average person).

During detailed design, the housing proposed in all areas of the site would require a noise-reduction analysis because ambient noise levels are above 60 dBA, the maximum level recommended for residential uses in the San Francisco Environmental Protection Element.

Energy (see Section V, p. 125). On-site construction activities associated with the ten-year project construction period are projected to consume 300,000 kWh of electricity, 50,000 gallons of diesel fuel and 56,000 gallons of gasoline. The project would be designed to comply with applicable Title 24 energy efficiency standards. The project would increase annual consumption of natural gas by about 140 billion Btu and electricity by about 284 billion Btu. Construction energy, including that used in transport and materials

manufacture, when amortized over the 50-year life of the project, would be about 52 billion Btu per year. Total annual energy consumption would thus be about 476 billion Btu.

Geology, Seismicity and Hydrology (see Section V, p. 132). Project grading would change the existing man-made topography of the project area to a series of level benches separated by moderately steep slopes (an average horizontal:vertical ratio of 2.25:1) which would be landscaped and hydroseeded. About 825,000 total cubic yards would be excavated during the six phases of project construction, of which approximately 61,000 cubic yards would be emplaced on-site as compact fill; the remaining material would be transported to the Candlestick Point State Recreation Area or to the Southern Pacific development sites in Brisbane, where it would be used for fill. A maximum vertical cut into the hillside of 85 ft. and an average cut of 16 ft. in depth are proposed. Groundshaking would be the greatest potential seismic hazard on the site. All buildings would be designed to meet seismic design standards as specified in the San Francisco Building Code, and to resist the lateral loads induced by earthquake shaking. Localized seepage from cut slopes would probably occur following excavation, and could result in slope instability in weak geologic materials. Surface water runoff would be directed to minimize erosion and sediment. Dewatering would not be required during construction, as the water table depth is lower than the building foundations.

Ecology (see Section V, p. 137). The project would remove all vegetation below approximately the 180 ft. elevation in Area 2 and the 150 ft. elevation in Area 3 (see Figure 2, p. 26). Minimal removal of vegetation would occur in Area 1. The project would decrease by about 24 acres the undeveloped lands in the County of San Francisco available for colonization and growth of native California plants. The project would eliminate the habitat for wildlife now inhabiting the 24 acres of the project area that would be developed, and would reduce available forage for animals occupying adjacent areas and feeding on the site. Because the project would not eliminate populations of San Bruno elfin, Mission blue or Callippe Silverspot butterflies, rare and endangered species known to occur in the vicinity of the project area. The project could have indirect effects on these species and their host plants which occur immediately north of the site in Bayview Hill Park by altering the microclimate, changing existing water flow patterns, increasing the number of people in the area and introducing some new non-native plants used in landscaping. Success of the hillside planting program would depend on the species that would be selected and the maintenance program used.

Employment, Housing and Fiscal Factors (see Section V, p. 139). The proposed project would provide about 500 person-years of construction labor during the ten-year construction period. The proposed project would create employment opportunities for about 4,630 workers, for a total of about 6,440 jobs created at the Executive Park site at full buildout. Secondary employment generated through the multiplier effect would vary, depending on the types of tenants that would occupy the project.

Based on the 1.15 million gross sq. ft. of office space proposed, the project would create a demand of 1,022 housing units under the formula in the Interim Guidelines of the Office/Housing Production Program (OHPP), adopted in January 1982. (This calculation of 1,022 units of housing demand does not subtract office space included in the 1978 Yerby Plan before implementation of OHPP. Subtracting the unapproved office space included in the Yerby Plan would reduce the housing demand calculation. See Mitigation Measures, pp. 183-184 for further discussion.) Adding on-site cumulative office development to the proposed project results in a total demand of 1,330 units. The project would provide 600 units of housing on-site.

Net revenue to the City and County of San Francisco generated from the project would total about \$4.47 million (1984 dollars) from property, payroll, gross receipts, hotel, and sales taxes. The project could generate an operational cost deficit to Muni of \$222,000 based on an increased ridership of 444,000 rides per year; project contributions to Muni from the General Fund and from sales taxes would offset this deficit.

Growth Inducement (see Section V, p. 158). The project may create incentive for additional retail stores and restaurants to open in the vicinity of the project. The industrial area southwest of the site along the Brisbane - San Francisco border could become a desirable location for future office development, if the project were built. This could indirectly stimulate growth on nearby commercial streets such as Third St., San Bruno Ave. and Leland Ave.

Community Participation (see Section V., p. 160). According to the project sponsor, it has been meeting with the San Francisco Executive Park Advisory Committee, since Campeau's acquisition of the site in 1979. The Advisory Committee consists of representatives from Little Hollywood, Visitacion Valley and Bayview Hunters Point. As part of the planning of the Development Plan Amendment, the sponsor and its

representatives have met with individuals and organizations throughout the community. Major areas of concern and interest expressed about the project are traffic generation and employment opportunities at the project.

C. MITIGATION MEASURES (see Section VI, p. 164)

Various mitigation measures have been identified that would reduce or eliminate potential environmental effects of the proposed project. Mitigation measures included in the proposed project are: stepping back of structures, preserving views of Bayview Hill above the 250 ft. elevation, and landscaping portions of the site.

Muni is currently considering extension of the No. 29 Muni bus line to the Executive Park site. The extension as proposed would require an at-grade crossing at the Southern Pacific Railroad tracks. If this extension occurs, vehicular traffic generated by the project might be decreased. The project sponsor has not committed to pay for, nor are there public funds currently budgeted for, extension of the No. 29 line.

To accommodate the additional traffic on streets within the project area, staged improvements such as intersection signalization and roadway widening are suggested as mitigation measures as the intensity of development in the project area increases (see Section VI, pp. 170-171 and Table 16, p. 171). With improvements, the three intersections (Alana Way / Beatty Ave.; Harney Way / Alana Way; and Alana Way / Executive Park Blvd. West) in the project vicinity would be expected to operate at Level of Service D or better during the p.m. peak hour at buildout. The project sponsor has not committed to participate in single or joint funding of these staged roadway improvements, which would benefit other users in addition to the project. There are no public funds currently budgeted to provide these improvements.

Also included as part of the project are energy-conserving design measures. In addition, preparation of a detailed foundation and engineering study prior to construction of each building could be required.

The project would include 600 units of housing on-site, which would entitle the sponsor to up to 728 units/credits of housing. Provision of 716 units/credits would meet the project housing demand for the net increment of 805,000 sq. ft. of office space beyond the

approved 1981 plan. If the 1.15 million sq. ft. of office space is used to determine the total project housing demand, the OHPP formula indicates that the project would generate a housing demand of 1,022 units. If the employee survey results are used, estimated project housing demand would be 1,070 units. None of the additional demand of 306-354 units under this rationale would be provided by the sponsor, because the sponsor believes that this is an incorrect application of the OHPP guidelines. Therefore, the sponsor plans to mitigate the estimated housing requirement generated by the net increment of 805,000 sq. ft., which is 716 units/credits based on OHPP, by developing housing units on the site.

In addition to the measures above, many of the measures identified in the 1976 Final EIR and previously required by the City Planning Commission as conditions of approval for the Yerby Development Plan remain applicable and are included as part of the project.

D. SIGNIFICANT ENVIRONMENTAL EFFECTS (see Section VII, p. 188)

During the p.m. peak period, the proposed project, combined with on-site, local, and regional cumulative development, would degrade the current Level of Service in the p.m. peak hour on US 101 southbound to E, and extend the period during which peak-of-the-peak conditions occur.

E. SHORT-TERM USES AND LONG-TERM PRODUCTIVITY (see Section VIII, p. 189)

Effects that would occur during the life of the project include loss of some open space; visual alteration of the site; alteration of wind patterns (mostly beneficial); an increase of 4,630 employment opportunities; 600 additional residential units; increased traffic congestion; increased revenues to the City from property taxes; and the removal of plant and wildlife habitat.

F. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES (see Section IX, p. 190)

Energy consumed by the project would be an irreversible commitment of energy resources. Proposed roadway improvements could commit future generations to expansion of commercial development in the project vicinity. Once development occurs, subsequent purchase of the project area for open space would be infeasible.

G. ALTERNATIVES TO THE PROPOSED PROJECT (see Section X, p. 191)

Alternative A: No Project: No Development of the Site Beyond OB 1 - OB 4. This alternative would involve the construction of OB 3, OB 4 and the Alana Way restaurant. These buildings are not part of the project and have already been approved under the previous Yerby Development Plan. Conditions associated with this alternative would be most similar to those discussed in the Environmental Setting section of this report, except that it would involve the addition of 284,000 sq. ft. of office space and 5,000 sq. ft. of restaurant space. Alternative A would not construct hotel and residential uses within the project area. It would permit future use of the site for open space or other permitted uses.

Alternative B: Continued Buildout of the Yerby Development Plan. This alternative would continue development of the Yerby Development Plan, including changes approved in 1980 and 1981. Alternative B would involve the construction of 345,000 sq. ft. of office space (not including OB 1 - OB 4), 28,000 sq. ft. of retail/restaurant space (not including the Alana Way restaurant) and 239,000 sq. ft. of hotel space (420 rooms) for a total of 612,000 sq. ft. of new construction. See Appendix A, Table A-2, p. A-5 for a discussion that compares the impacts of full buildout of the Yerby Plan to full buildout of the revised Executive Park Plan (with amendment).

Alternative B would introduce hotel, meeting and retail uses on the site; no residential uses would be included. The project would develop about three times more floor area than would be developed in Alternative B.

By excluding residential uses, this alternative would conform to the commercial-use designation in the South Bayshore Plan of the Comprehensive Plan. Visually, Alternative B would differ from the project primarily by construction of three 230-ft.-high office towers on the northwestern portion of the site. Wind conditions associated with this alternative would be similar to those of the proposed project. With this alternative, there would be about 3,000 fewer jobs created than with the project. Compared to project conditions, there would be a 60% reduction in the peak-hour vte and a 76% reduction in peak-hour transit trips. Air quality and energy impacts associated with Alternative B would be substantially less than those of the project. Noise impacts associated with this alternative would generally be similar to those of the project. There would be less slope cutting of the project area; excavation and grading would remain about the same as for the proposed project.

Alternative C: Mixed-Use/Medium-Density Alternative. Alternative C would consist of 750,000 sq. ft. of office space, 5,000 sq. ft. of retail space and 96,000 sq. ft. of residential space, totaling 851,000 sq. ft. of new construction. No development above the existing 100-ft. elevation line would occur. Land uses would be similar to those of the proposed project. No height or bulk district reclassification would be required for the eastern portion of the site, as would be required for the project. Visually, site buildings would appear less dense than with the project. Average summer afternoon west winds on the eastern portion of Bayview Hill, north of the housing in Area 3, would increase under the three wind directions compared to those with the project. Winds at the western portion of Bayview Hill, the intersection of Executive Park Blvd. and Thomas Mellon Dr., and at Candlestick Park Stadium, would be about the same as or slightly less than with the proposed project. Winds in Little Hollywood and along Alana and Harney Ways would be similar to or slightly greater than those with the proposed project. Compared to project conditions, there would be a 33% reduction in peak-hour vte and a 36% reduction in peak-hour transit trips. There would be less slope cutting, excavation and grading than with the proposed project.

Alternative D: Maximum Residential Development. Alternative D has two variants: 1) construction of 1,300 residential units with 5,000 sq. ft. of retail space, and 2) construction of these residences with the addition of a 350-room hotel.

D.1 Maximum Housing (No Hotel)

This alternative would develop the entire project site into housing (with the exception of OB 1 - OB 4) and the Alana Way Restaurant. Alternative D.1 would provide a total of about 1,300 residential units and 5,000 sq. ft. of retail space. Under this alternative there would be a less varied mix of uses than those in the proposed project.

Alternative D.1 would not conform to the commercial-use designation of the site in the amended South Bayshore Plan. This alternative would be more visually prominent than the proposed project, because of the three 230-ft.-high towers on the northwestern portion of the site. Winds would be similar to those predicted for the project, except for higher winds at Executive Park Blvd. North, higher southwesterly and northwesterly winds along Thomas Mellon Dr., and lower northwesterly winds at Candlestick Point State

Recreation Area. Employment opportunities would be substantially reduced, as almost all development would be residential. There would be an 85% reduction in peak-hour vte and a 20% decrease in peak-hour transit ridership. On-site noise impacts would be greater than with the project because of the greater number of sensitive noise receptors (residences) on the site.

D.2 Maximum Housing With Hotel Development

This alternative would develop the project site into 1,300 residential units, 5,000 sq. ft. of retail space, and a 160-ft.-high, 350-room hotel and meeting space. Although less varied than the proposed project, Alternative D.2 would provide a diversity of uses at the site.

Visually, this alternative would be slightly more prominent than the proposed project.

Employment opportunities would be substantially less than for the proposed project, although there would be more employment opportunities than for Alternative D.1. There would be an 80% reduction in peak-hour vte, compared to the project, and a 20% decrease in peak-hour transit ridership.

Air quality impacts would be substantially less than for the proposed project. Noise impacts would be similar to those of the proposed project.

Alternative E: Construction of 1983 Development Plan Amendment. Alternative E would consist of the Development Plan Amendment reviewed in the 1983 Draft Subsequent EIR, and would include approximately the same mix and total amount of square footage of uses as the proposed project, except that 500 residential units would be provided, rather than the 600 units now proposed. As with the proposed project, this alternative would require an amendment to the South Bayshore Plan of the Comprehensive Plan to permit residential uses on the site.

Alternative E would have more visual impact than the proposed project, because of the hillside restaurant, funicular, and clustered housing. Winds would be similar to or slightly less than those predicted for the proposed project, except for the housing area, the proposed project's hotel site, and (for southwesterly winds) in the Town Center. Compared to the proposed project, there would be no reduction in peak-hour vte and a two percent reduction in peak-hour transit trips.

Air quality, noise, energy, and employment impacts would be similar to those of the proposed project. This alternative would have a greater net housing-demand impact than the proposed project because 100 fewer housing units would be provided.

Average slope cuts would be about 30 ft. greater than those for the proposed project. Excavation would also be greater than that for the proposed project.

Alternative F: Special Use District Classification. Alternative F would physically be the same as the proposed project, with the same total floor area, mix, and location of uses as the proposed project. It would differ only by its approval mechanism which, in addition to the approvals required for the proposed project, would include creation of a Special Use District (SUD). The SUD would specify principal and accessory uses for the site, if it were adopted.

Alternative G: Planned Unit Development Designation. Alternative G would be physically the same as the proposed project, differing only by its approval mechanism. Depending on the final, detailed design of the residential buildings, the project may need a Planned Unit Development (PUD) to redistribute the open space required by the City Planning Code for residential uses. As with the project, Alternative G would require an amendment to the South Bayshore Plan of the Comprehensive Plan to allow residential uses, and Height and Bulk district reclassifications. In addition, it would require the same amendments to the text and Zoning Map of the City Planning Code as the proposed project.

III. PROJECT DESCRIPTION

A. SPONSOR'S OBJECTIVES/1,2/

Campeau Corporation California acquired the Executive Park site from the Yerby Corporation in December 1979. Campeau was not satisfied with the scale, design or the mix of uses in the Yerby Plan, and is therefore proposing an amendment to that Plan. The Yerby Development Plan included three high-rise office towers, a restaurant, retail and hotel/convention uses; however, Campeau judged that the Yerby Plan did not provide a balanced or well-integrated mix of uses, which Campeau views as essential to the site's development. The current proposed amendment, which is the subject of this EIR, would eliminate the high-rise towers, retain office, retail, restaurant and hotel/meeting uses, and introduce a new use, housing. The proposed amendment also meets current design objectives requested by the Department of City Planning. The sponsor's objectives are to:

- provide office space outside the San Francisco Central Business District with retail and hotel/meeting support facilities;
- attract new businesses to San Francisco and retain those that might consider leaving the City for a less expensive suburban location;
- provide residences near sources of employment with retail support;
- create a balanced urban center where commercial and retail space are integrated with a plaza, promenades, open space and housing, which encourage 24-hour activity at the site;
- improve the quality of design of the previous Yerby Plan to be reflective of the site's potential image as the gateway to San Francisco; and
- integrate urban design and architectural concepts which contour the buildings into the hillside and preserve Bayview Hill as a dominant feature of the site.

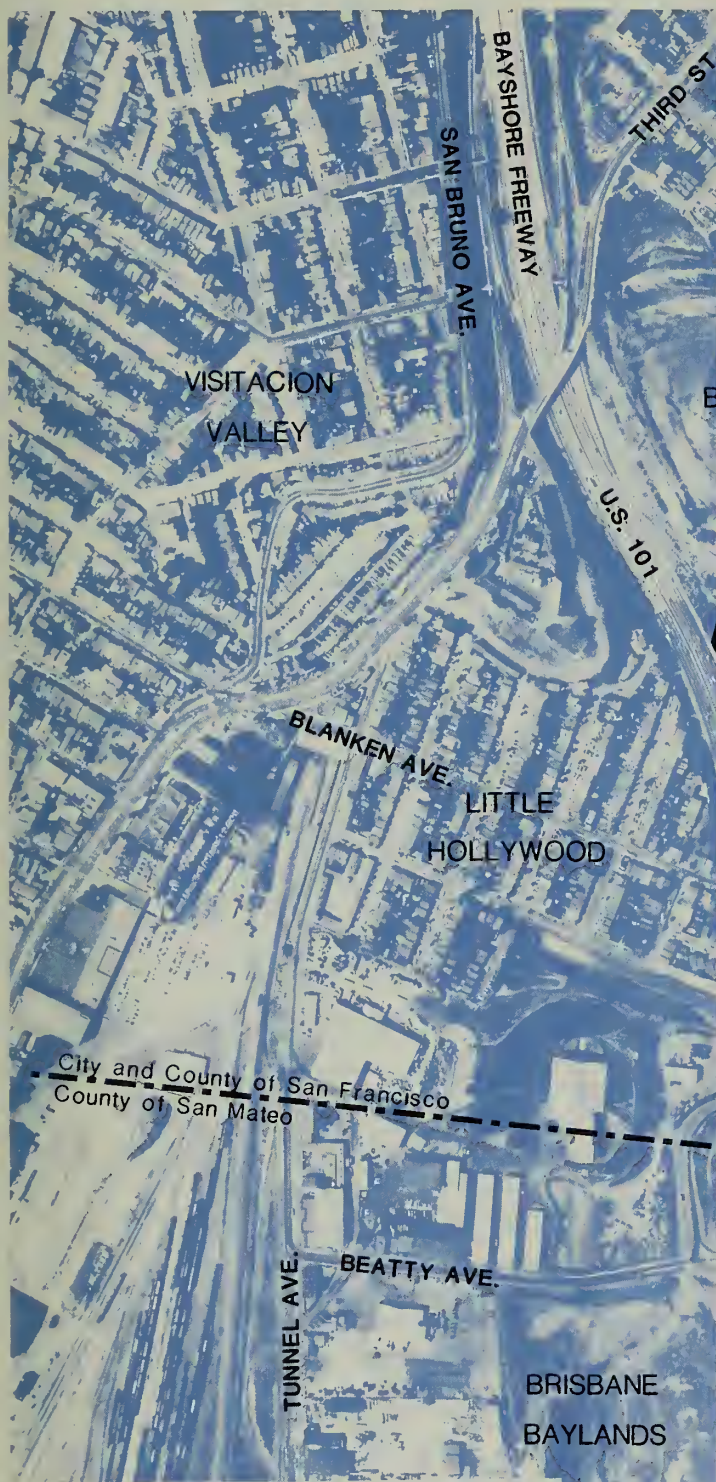
To achieve the design objectives, the sponsor has retained the architectural firm of Hellmuth, Obata, and Kassabaum (HOK), San Francisco.

B. PROJECT AREA LOCATION

The 60-acre project area is situated near the southeastern boundary of the City and County of San Francisco (see Figure 1, p. 23). The project area is located in Assessor's Block 4991 on portions of Lots 75, 85, 86 and 87. It consists of two non-contiguous areas. The main, 50-acre, portion of the project area consists of almost all of Lot 87 and is bounded on the west by the two-acre site of the planned OB 4 and US 101 (the Bayshore Freeway); on the south by the existing Executive Park Blvd. North and by Harney Way; on the east by City property on Jamestown Ave.; and on the north by Bayview Park, the uppermost portion of Bayview Hill. This 50-acre portion of the project area would be the location of the office/retail complex, garage, town center, and housing complex. The 10-acre portion consists of a large portion of Lot 85 and small portions of Lots 75 and 86. This portion of the project area would contain the hotel complex, and is bounded on the north by the existing OB 2 and the planned OB 3; on the west by the existing OB 1; and on the southeast by Harney Way. Portions of Lots 75, 86, 85 and 87 which are not occupied by the proposed project are occupied by OB 1, OB 2, the planned OB 3, and the planned OB 4, respectively.

The Bayview Hunters Point residential neighborhood is located north of the site beyond Bayview Hill. Via a tunnel under US 101, Blanken Ave. connects to areas west of US 101, including the Little Hollywood neighborhood. US 101 provides direct access from the site to downtown San Francisco, located about six miles to the north, and to San Francisco International Airport, located about six miles to the south. Candlestick Park Stadium and a portion of the Candlestick Point State Recreation Area are east of the project area. San Francisco Bay and a portion of the Recreation Area are to the south.

The site is in the C-2 (Community Business) Planning Code Use district, in which the basic allowable Floor Area Ratio (FAR) is 3.6:1. The site is in the 40-X and 230-G Height and Bulk Districts. Within the 40-X district, the maximum allowable height is 40 ft.; no bulk limits apply. The maximum allowable height in the 230-G district is 230 ft.; above a building height of 80 ft., the maximum permitted facade width is 170 ft., and the maximum diagonal dimension length is 200 ft.



EXECUTIVE PARK DEVELOPMENT PLAN

LEGEND



EXECUTIVE PARK SITE



PROJECT AREA

FIGURE 1: PROJECT LOCATION

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



EXECUTIVE PARK DEVELOPMENT PLAN

LEGEND

- EXECUTIVE PARK SITE
- PROJECT AREA

FIGURE 1: PROJECT LOCATION

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

C. PROJECT CHARACTERISTICS

The project would contain a total of 1.85 million gross sq. ft. of office, housing, hotel/meeting, retail, and restaurant space, and parking space for about 4,070 vehicles./3,4/ Development would consist of the following gross floor areas:

- 1.15 million sq. ft. of office space;
- 425,000 sq. ft. of residential space (600 units);
- 234,000 sq. ft. of hotel (350 rooms) and meeting space; and
- 45,000 sq. ft. of retail/restaurant space.

See Table 1, p. 25 for a summary of floor area by use and phasing.

Buildings would be clustered in three areas (Areas 1-3). Each cluster would be situated on a series of stepped, landscaped benches along the toe and lower slopes of Bayview Hill (see Figures 2 and 3, pp. 26-27).

Area 1 is situated on the southern portion of the project area, north of Harney Way (see Figures 2, p. 26 and 4, p. 28), and would contain the hotel/meeting facility. Area 1 would also contain the existing OB 1 and OB 2 and the approved OB 3, which are located west and north of the hotel complex within Area 1. Portions of Area 1 currently approved for on-grade parking for OB 1 - OB 3 would be redeveloped into the hotel meeting facility. The height of the hotel/meeting building would be 80 ft. Approximately 500 parking spaces would be provided underneath the hotel/meeting facility; of this amount, 360 spaces would be constructed for the hotel/meeting facility and 140 would replace a portion of the existing surface spaces for OB 1, OB 2 and OB 3. The 234,000-sq.-ft. hotel would contain about 350 hotel rooms and meeting rooms. In addition, 5,000 sq. ft. of retail and restaurant (including catering/food-preparation facilities) would be associated with the hotel. In addition to the 500 parking spaces underneath the hotel/meeting facility, Area 1 would contain about 660 surface parking spaces for OB 1, OB 2 and OB 3.

Area 2 is on the upper northern and central portion of the project area (see Figures 2, p. 26 and 4, p. 28). Area 1 and Area 2 would be separated by Executive Park Blvd. North. Offices, retail/restaurant space, a Town Center, and a garage structure are proposed for Area 2. A cluster of office buildings containing approximately 1,150,000 sq. ft. of office space would be located north of Executive Park Blvd. North. (OB 4, which has been approved, but not yet constructed, would be in Area 2, between the office/retail structure and US 101.) A Town Center would be approximately in the center of the array of project office buildings. The Town Center would be an outdoor plaza surrounded on three sides by

TABLE I: EXECUTIVE PARK DEVELOPMENT PLAN PROJECT PHASING /a/

PHASE/YEAR	Office (sq. ft.)	Retail/ Restaurant (sq. ft.)/b/	Hotel/ Meeting (sq. ft.)	Housing (units on-site)	Parking (spaces)/c/
<u>Approved</u>					
1981-82 (Completed)	210,000	0	0	0	552
1985 (To be completed)	110,000	0	0	0	245
1986 (To be completed)	<u>174,000</u>	<u>5,000</u>	<u>0</u>	<u>0</u>	<u>401</u>
SUBTOTAL	494,000	5,000	0	0	1,198
<u>Proposed</u>					
(Phase/Year of Completion)					
1/1986	175,000	0	0	0	415
2/1987	200,000	7,000	0	80	609 /d/
3/1989	385,000	26,000	0	280	1,387
4/1992	215,000	7,000	0	140	1,149 /d/
5/1993	175,000	0	0	100	150
6/1996	0	5,000	234,000 (350 rms)	0	360
SUBTOTAL	<u>1,150,000</u>	<u>45,000</u>	<u>234,000</u>	<u>600</u>	<u>4,070</u>
TOTAL	1,644,000	50,000	234,000	600	5,268

/a/ Based on anticipated leasing and market absorption rate of 150,000 sq. ft. of office space per year.

/b/ Does not include 2,000 sq. ft. of existing restaurant space in OB 1 and OB 2.

/c/ Office parking is based on 2.5 spaces per 1,000 sq. ft. of leasable floor area (95% of gross). Residential parking is based on 1.5 spaces per unit. Hotel parking is based on one space per room.

/d/ The amount of parking is based on requirements which may be adjusted depending on the success of the proposed Transportation Systems Management (TSM) program (see Section V.E., pp. 163-164).

SOURCE: Hellmuth, Obata, and Kassabaum and Environmental Science Associates, Inc.

EXECUTIVE PARK DEVELOPMENT PLAN

LEGEND

PROPOSED PROJECT

OFFICE (SQ. FT.)*	1,150,000
RETAIL/RESTAURANT (SQ. FT.)	45,000
HOTEL/MEETING (SQ. FT. ROOMS (350)	234,000
RESIDENTIAL (SQ. FT.) UNITS 600)	425,000
TOTAL GROSS FLOOR AREA (SQ. FT.)*	1,854,000

EXISTING (SQ. FT.) 210,000

O.B.1 O.B.2

APPROVED (SQ. FT.) 289,000

O.B.3 O.B.4 AND
ALANA WAY RESTAURANT

**TOTAL FLOOR AREA OF DEVELOPMENT
PLAN (SQ. FT.) 2,353,000**

* TOTALS DO NOT INCLUDE OB 1-4



EXISTING



APPROVED FOR CONSTRUCTION

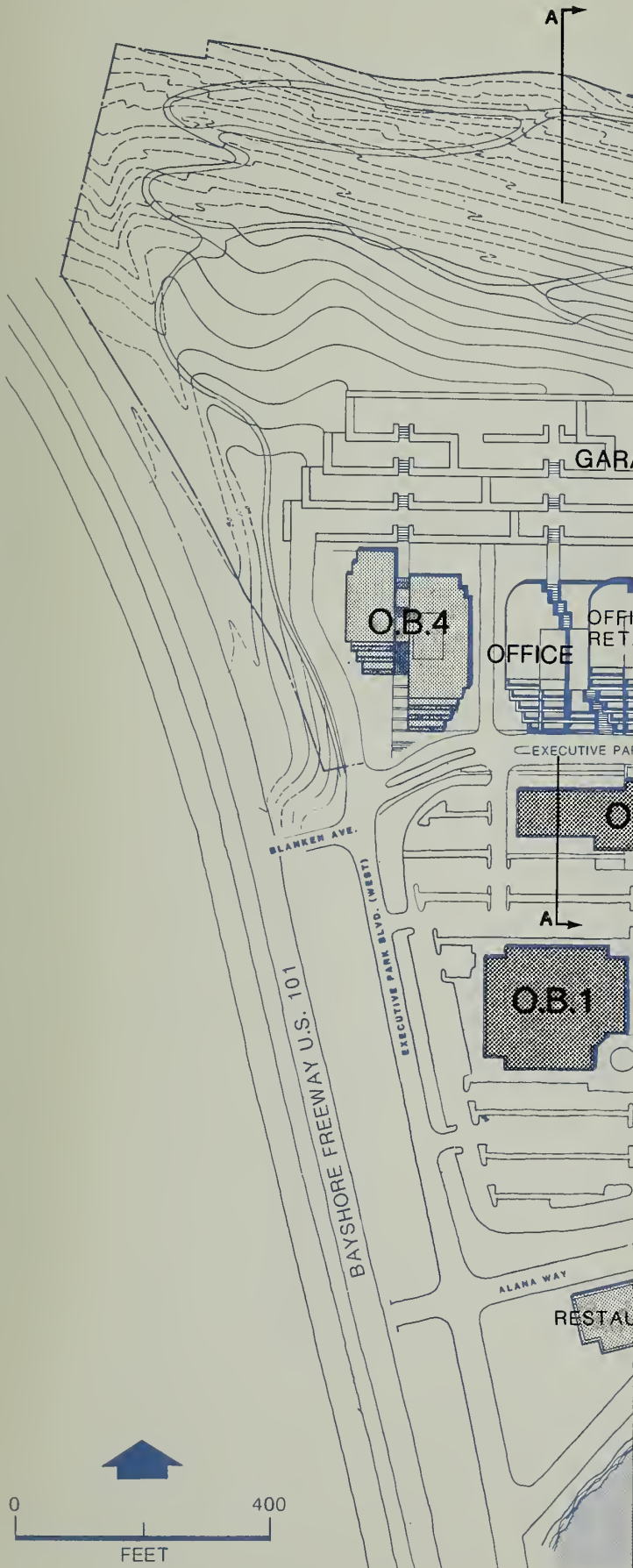
RESTAURANT

The placement of structures is conceptual and does not indicate exact locations of proposed buildings.

FIGURE 2: SITE PLAN

SOURCE

HELLMUTH, OBATA, & KASSABAUM





EXECUTIVE PARK DEVELOPMENT PLAN

LEGEND

PROPOSED PROJECT

OFFICE (SQ. FT.)*	1,150,000
RETAIL/RESTAURANT (SQ. FT.)	45,000
HOTEL/MEETING (SQ. FT. ROOMS (350)	234,000
RESIDENTIAL (SQ. FT.) UNITS 600)	425,000
TOTAL GROSS FLOOR AREA (SQ. FT.)*	1,854,000

EXISTING (SQ. FT.) 210,000

O.B.1 O.B.2

APPROVED (SQ. FT.) 289,000

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**TOTAL FLOOR AREA OF DEVELOPMENT
PLAN (SQ. FT.) 2,353,000**

* TOTALS DO NOT INCLUDE OB 1-4



EXISTING



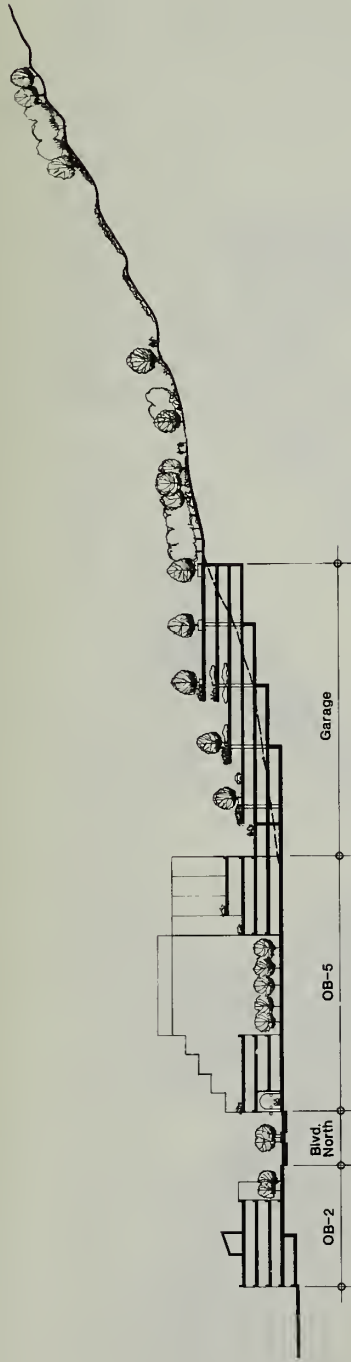
APPROVED FOR CONSTRUCTION

The placement of structures is conceptual and does not indicate exact locations of proposed buildings

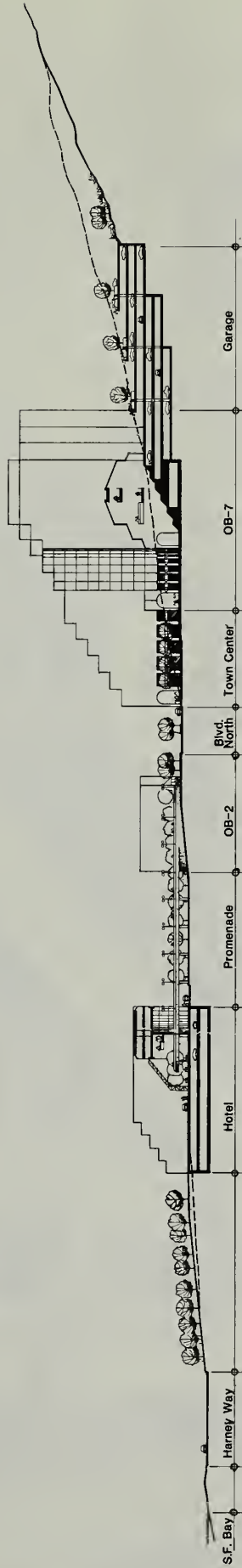
FIGURE 2: SITE PLAN

SOURCE

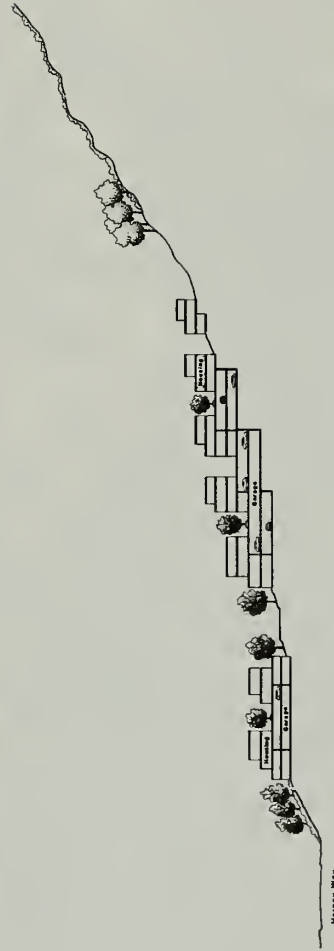
HELLMUTH, OBATA, & KASSABAUM



SECTION A



SECTION B



SECTION C



See Figure 2 for the location of cross sections.

FIGURE 3: SITE SECTIONS

SOURCE
HELLMUTH, OBATA, & KASSABAUM



NOTE: The placement, height, and design of structures are conceptual and subject to ongoing review by the Department of City Planning.

FIGURE 4: PHOTOGRAPH OF DEVELOPMENT PLAN MODEL (AERIAL VIEW)

SOURCE
MAX FALLON; AND
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

III. Project Description

a total of 40,000 sq. ft. of retail/restaurant space on the ground-floor and lower floors of office buildings surrounding the plaza. The Town Center would be located at the intersection of two main pedestrian corridors (discussed in Site Access, Parking and Circulation, below) and is intended to be a focal point of the pedestrian activity, with facilities for shopping, eating and gathering. Building heights in Area 2 would range from 80 to 200 ft. The parking garage north of the office buildings would have about 3,210 parking spaces to accommodate office and retail uses. Of these 3,210 parking spaces, approximately 2,810 spaces would be new spaces provided in the proposed project and approximately 400 spaces would replace existing or approved surface parking spaces.

Area 3, located on the far eastern portion of the project area, would be developed into housing. About 425,000 gross sq. ft. (600 units) of housing would be developed with 900 parking spaces, all designated for residents, provided underneath. The housing units each would contain an average of about 700 sq. ft. Housing structures would range in height from 60 to 80 ft.

DESIGN CONCEPT

The project area layout is intended by the project architect to preserve the character of Bayview Hill. Buildings in Area 2 and Area 3 would be stepped into the hillside. This stepped configuration is intended to preserve the topography and retain views of Bayview Hill above the 240 ft. elevation; the hill reaches an elevation of about 350 ft. within the project area. Most buildings would be oriented with their long exposures to the north/south, affording views of the upper slope of Bayview Hill to the north and of the Bay to the south (see Figure 2, p. 26).

SITE ACCESS, PARKING AND CIRCULATION/3/

The principal access to the project area would be provided by US 101. From the south, vehicles would exit US 101 at the Harney Way off-ramp. From the north, access from US 101 would be provided at the Beatty Ave. off-ramp (see Figure 9, p. 53). Vehicles approaching the project area from the west via Bayshore Blvd. could use Beatty Ave. or Blanken Ave. Vehicles coming from the Hunters Point Bayview area via Jamestown Ave. Extension would use Harney Way. Alana Way, located south of the project area, passes underneath US 101 and connects with Beatty Ave. on the west and with Harney Way on the east.

III. Project Description

As discussed above, Areas 1, 2 and 3 would contain a total of about 5,270 parking spaces at full buildout (500 underneath the hotel, 900 underneath the housing, 3,210 in the main parking garage, and about 660 on the surface.) This would be a net addition of 4,070 spaces to the 1,200 existing surface parking spaces, which have been approved or constructed for OB 1, OB 2, OB 3 and OB 4.

On-site vehicular travel would be concentrated on Executive Park Blvd. East and Executive Park Blvd. West, both of which would provide access to the hotel, offices, and parking structure. The hotel would also be accessible from Harney Way. Access to housing in Area 3 would occur from Executive Park Blvd. East.

Pedestrian circulation would be concentrated on two major corridors: north/south from the hotel to the Town Center, and east/west along Executive Park Blvd. North. Secondary pedestrian pathways are planned within the residential portion of the site and the hillside open space.

PROJECT SCHEDULE AND PHASING/4/

OB 3 and OB 4 are scheduled to be completed in 1985 and 1986, respectively. The proposed project would be constructed in six phases over a ten-year buildout period beginning in 1986 (see Table 1, p. 25).

In Phases One - Five (1986-1993), 1,150,000 sq. ft. of office space would be developed in Area 2. The retail and restaurant space in Area 2, totaling 40,000 sq. ft., would be developed in Phases Two, Three, Four, and Six (1987-1996). The 600 housing units in Area 3 would be constructed in Phases Two - Five (1987-1993).

During Phase Six (1996), approximately 234,000 sq. ft. of hotel and meeting space and 5,000 sq. ft. of retail/restaurant space would be developed in Area 1.

See Table 1, p. 25 for the phasing of the parking spaces.

LANDSCAPING/4/

Landscaping would be planted concurrently with building phases. Hillside planting and hydroseeding programs have begun during development of OB 1 and OB 2, and would be

III. Project Description

completed during construction of the proposed project (see IV. Ecology, p. 68). During development of the project, the interiors and perimeters of building clusters and the Town Center plaza would be landscaped.

The hillside planting would be a combination of trees and shrubs, cascading plants and ground covers which would be predominately California native plants. A variety of plants would be used to create a natural appearance, and provide a selection of plants that would be best suited to varying soil types found on the hillside.

A hillside trail system, accessible to the public, would be installed to link Bayview Hill Park and Candlestick Point State Recreation Area to the Executive Park site (see Figure 4, p. 28). The western portion of the hillside trail system (linking Executive Park to Bayview Hill Park) and overlook picnic areas would be completed in Phase 2 (1987). The overlook picnic areas and central portion of the trail system linking the office complex and Town Center to the hillside, and linking the hillside to Candlestick Point State Recreation Area and Bayview Hill Park, would be completed in Phase 4 (1992).

D. PROJECT COSTS (1984 Dollars)/3,5,6/

All project construction costs and rental rates are estimated in 1984 dollars. Project development costs would total about \$287 million; this amount includes approximately \$123 million for basic construction, \$26 million for interior finishing, \$32 million for land costs and \$106 million for interim financing, design, and professional services. On the assumption of current market conditions, office space is expected to rent for about \$22 per sq. ft. and retail space for about \$18 per sq. ft. annually. Selling prices of the residential units in the proposed project would range from \$116,000 for one-bedroom units to \$132,000 for two-bedroom units (1984 dollars). Hotel room rates would average \$60 per night. These costs and prices are expected to rise with inflation throughout the ten-year buildout of the project.

E. APPROVAL REQUIREMENTS

Following a public hearing on this Draft EIR before the City Planning Commission, responses to all written and oral comments will be prepared. Revisions to the Draft EIR

III. Project Description

(Summary of Comments and Responses) will be reviewed by the City Planning Commission and the Final EIR certified as complete.

The sponsor would request reclassifications from the existing 230-G and 40-X Height and Bulk districts to eight height and bulk districts, ranging in height from 40 ft. to 200 ft., and including bulk districts G, H, I, and X, as discussed in the Land Use and Zoning section, pp. 78-79 and shown in Figure 12A, p. 80. If approved by the City Planning Commission, the height and bulk reclassification ordinance would be presented to the Board of Supervisors for action and, if approved, would then go to the Mayor for signature.

The project would require a text and map revision to the South Bayshore Plan of the San Francisco Comprehensive Plan for development of housing on the site. The City Planning Commission could require discretionary review of individual building designs and site layout before building permits would be issued (Resolution No. 7547). A longitudinal encroachment permit would be required from the California Department of Transportation (CalTrans) for grading on the western portion of the site which could extend onto CalTrans' US 101 right-of-way. Subdivision approval by the Department of Public Works would be required prior to subdivision of lots and prior to sale of condominium units. All internal streets would be dedicated to the City and County of San Francisco. The hillside trail system would be privately owned by the sponsor, but accessible to the public.

The Department of City Planning intends to do a Special Area Plan (SAP) for the project site. The Special Area Plan would be more specific than the South Bayshore Plan and is expected to correspond to the Executive Park Development Plan. The environmental effects of the Special Area Plan are also expected to be similar to those of the Executive Park Development Plan. Nevertheless, environmental evaluation of the Special Area Plan would need to be performed. The Special Area Plan has not been completed. If the Special Area Plan is identical to the Executive Park Development Plan, then this EIR would provide the environmental evaluation of the Special Area Plan.

Depending on the final, detailed design of the residential buildings, the proposed Executive Park Development Plan may require a Planned Unit Development (PUD) to redistribute or modify the open space required by the City Planning Code for residential uses. The function of the Planned Unit Development could be accomplished by a Special Area Plan.

III. Project Description

The San Francisco Cleanwater Program holds a sewer easement for a sewer tunnel under the site. The project sponsor has agreed to comply with the conditions of this easement, which places restrictions on construction above and adjacent to the easement and requires that any building within the easement be reviewed by the Cleanwater Program.

NOTES - Project Description

/1/ Jay Mancini, then Director of Commercial Development, Campeau Corporation California, interviews, January 26 and May 5, 1983.

/2/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, interview, April 16, 1984.

/3/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, May 24, 1984.

/4/ Campeau Corporation California, San Francisco Executive Park Development Plan Report Addendum 2, April 1984.

/5/ Jay Mancini, then Director of Commercial Development, Campeau Corporation California, letter, September 3, 1982.

/6/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, telephone conversation, August 8, 1984.

IV. ENVIRONMENTAL SETTING

A. LAND USE AND ZONING

LAND USE

Existing Land Uses On-site

The project area is located on the southern flank of Bayview Hill. The site is currently vacant. Much of the site has been graded at various times, resulting in dirt roads, steep terraces (inaccessible to vehicles), and removal of previous vegetation.

The existing Executive Park office complex, consisting of OB 1 and OB 2, is located south and west of the project area (see Figure 2, p. 26). OB 1 (a three-story building completed in 1981) and OB 2 (a four-story building completed in 1982) contain a total of 210,000 sq. ft. of floor area. As of August 1984, OB 1 was 98% occupied and OB 2 was 70% occupied./1/ A 550-space surface-level parking lot and landscaped areas surround OB 1 and OB 2. The central access to these buildings is Thomas Mellon Dr., which is landscaped and extends from Harney Way on the south to Executive Park Blvd. North on the north. Executive Park Blvd. East and West are partially completed and landscaped.

Planned Uses On-site

In addition to the proposed project, two office buildings (OB 3 and OB 4) and a restaurant are presently planned for the Executive Park site. These were approved in 1981 and 1982 as part of the 1978 Yerby Development Plan. A building permit has been issued for OB 3 and a site permit has been issued for OB 4. A building pad has been completed for OB 3 and groundbreaking occurred on December 5, 1984. OB 3 will be located east of OB 2 and Thomas Mellon Dr., in the south central portion of the Executive Park site (see Figure 2, p. 26). Construction activity on OB 4 is scheduled to begin in 1986. OB 4 would be located above Executive Park Blvd. North, between the project area and US 101. The restaurant has been designed, and will be located at the southeast corner of the intersection of Executive Park Blvd. West and Alana Way. A building permit has not yet been issued for the restaurant.

Existing Uses in the Site Vicinity

Uses surrounding the project area include open space, recreational, industrial, commercial areas and public roadways. Bayview Park adjoins the site on the north. This is a public, unimproved open space area occupying the summit and northern slopes of Bayview Hill. The park contains the KYA radio tower and includes trails and unimproved private roads (see Figure 5, p. 36). KYA radio has been granted an easement by the San Francisco Recreation and Park Department./2/

Candlestick Park Stadium, grounds and parking lots are located directly east of the project area. Since the fall of 1982, the City and County of San Francisco has considered the replacement of Candlestick Park Stadium with a stadium in the South of Market Area. However, the City and County is now considering renovating Candlestick instead of building a new stadium downtown./3/ East, south and north of Candlestick Park Stadium is a portion of the proposed Candlestick Point State Recreation area. The Sequoia Audubon Society operates a bird refuge along the shoreline southeast of the project area.

The residential neighborhoods of Bayview Hunters Point, Little Hollywood and Visitacion Valley are adjacent to the project area (see Figure 5, p. 36). According to the 1980 Census, total population in these neighborhoods is about 34,100, with 1,640 persons residing in Little Hollywood, 12,490 in Visitacion Valley, and 20,000 in Bayview Hunters Point./4/ Single-family units predominate in these neighborhoods; owner-occupied housing averages 50% of the total units in the Bayview Hunters Point and Visitacion Valley and about 65% in Little Hollywood. The mean population per household in 1980 was 3.20 in Little Hollywood, 3.37 in Visitacion Valley, and 3.01 in Bayview Hunters Point. These are higher than the citywide mean household size of 2.27 as a whole. Approximately 73% of the residents of Bayview Hunters Point are black, as compared to about 35% of the residents in Little Hollywood and 35% in Visitacion Valley. Asians and Pacific Islanders comprise about 30% of the population in Little Hollywood and Visitacion Valley. The median household income in Little Hollywood is \$23,281; in Visitacion Valley, \$18,536, and in Bayview Hunters Point, \$16,000.

EXECUTIVE PARK DEVELOPMENT PLAN



FIGURE 5: LAND USES IN
PROJECT VICINITY

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

EXECUTIVE PARK
DEVELOPMENT PLAN



FIGURE 5: LAND USES IN
PROJECT VICINITY



SOURCE: ENVIRONMENTAL SCIENCE & SOLUTIONS, INC.

A commercial tourist motel and restaurant, the Costa Brava, and industrial uses are located west of US 101. The Sanitary Fill Company solid waste engineering and system facility is situated about 800 ft. southwest of the site, across US 101. Beyond that facility are located switching yards of the Southern Pacific (Railroad) Transportation Company and other industrial land. Some of the industrial land is currently vacant, such as that of the Solid Waste Recycling Corporation located south of Beatty Ave. at US 101.

Planned Uses in the Site Vicinity

The California Department of Parks and Recreation intends to develop 170 acres of Bay shoreline into the Candlestick Point State Recreation Area. This 170-acre recreation area would extend from the south basin of Hunters Point to the south end of Brisbane Aquatic Park at Sierra Point, which is approximately 2.5 miles south of the San Francisco City/County line. Undeveloped portions of the proposed Candlestick Point State Recreation Area are used for overflow parking during events at Candlestick Park Stadium. The first phase of the Recreation Area (located east of the stadium) is complete; it consists of fishing areas, picnic tables, paths, landscaping, and barbecue pits.

The San Francisco Bay Conservation and Development Commission (BCDC) has permit jurisdiction over land lying within 100 feet of the shoreline. The project area lies outside of the 100-foot boundary, and therefore, falls under BCDC advisory jurisdiction only. The BCDC Plan recommends most of the Executive Park site as a waterfront park.^{/5/} This recommendation includes land from Candlestick Point to Sierra Point in Brisbane, and from Oyster Point in South San Francisco to Point San Bruno in South San Francisco.

The primary industrial development planned until recently in the vicinity would have been located to the southwest of the site in Brisbane. The Sanitary Fill Company had proposed to construct a waste-to-energy Resource Recovery Facility (RRF) in Brisbane, about 800 ft. southwest of the Executive Park site.^{/6/} That proposal was turned down by the electorate of Brisbane in November, 1982. The site could, however, accommodate expanded recycling operations not involving combustion of refuse. Sanitary Fill is currently considering expansion of its existing recycling operation with a refuse-derived fuel production facility. That facility would not require combustion of fuel; it is being considered for completion within the next five years.^{/7/} The Planning Department of the City of Brisbane indicates that it has not yet received a formal application from Sanitary Fill for this facility.^{/8/}

In the Brisbane Waterfront Plan, a view restaurant is proposed, east of US 101 near the northbound on-ramp at Harney Way./9/ Southern Pacific is currently considering development of its property in Brisbane, southwest of the project area, with emphasis on light industrial research and development type uses. This proposed activity is expected to occur over the next 10 to 20 years./10/

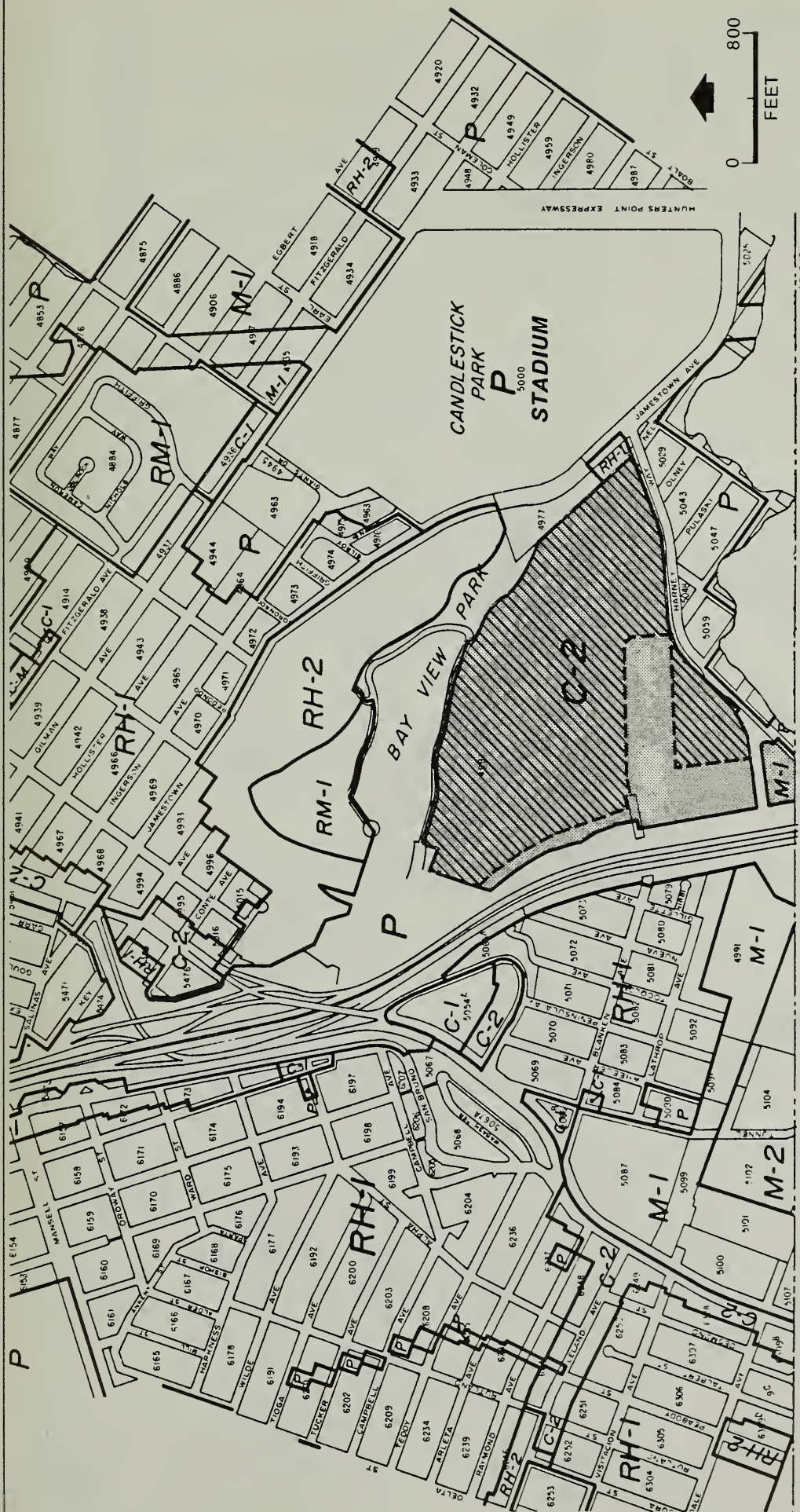
ZONING

The Executive Park site (including the project area) is located in the C-2 (Community Business) Planning Code Use district (see Figure 6, p. 39). The basic allowable Floor Area Ratio (FAR) in the C-2 District is 3.6:1; this FAR would allow development of floor area of up to 9.4 million sq. ft. within the 2.6 million-sq. ft. (60 acres) project area./11/ The 60-acre project area includes 50 acres of new development and 10 acres of land that would be redeveloped from its existing approved use (parking) to the hotel/meeting facility. Office, residential, hotel, and retail uses are permitted as principal uses in the C-2 district. For the project area, the C-2 district permits a maximum density ratio of one dwelling unit per 800 sq. ft. of lot area./12/

The project area is in the 40-X Height and Bulk district, except for a northwestern L-shaped portion which is in the 230-G district (see Figure 7, p. 40). Within the 40-X district, the maximum allowable height is 40 ft.; no bulk limits apply. The maximum allowable height in the 230-G district is 230-ft; above a building height of 80 ft. the maximum permitted facade width is 170 ft., and the maximum diagonal dimension length is 200 ft.

The site is within the Candlestick Park Special Sign District (Section 608.4 of the Planning Code). In this district, no general advertising sign, or other sign exceeding 200 sq. ft. in area is permitted.


In the C-2 district, parking is permitted at a minimum rate of one space per 500 sq. ft. of office space; one space per residential dwelling unit; one space for each 16 hotel rooms; one space for each 500 sq. ft. of retail space up to 20,000 sq. ft. (over 20,000 sq. ft., one space per 250 sq. ft. of retail space is required); and one space for each 200 sq. ft. of restaurant space that exceeds 5,000 sq. ft.



LEGEND

- P - Public use districts
- RH-1 - Residential, house districts, one-family
- RH-2 - Residential, house districts, two-family
- RM-1 - Residential, mixed districts, low density
- C-1 - Neighborhood shopping districts



- C-2 - Community business districts
- M-1 - Light industrial districts
- M-2 - Heavy industrial districts
- C-M - Heavy commercial districts

-  Executive Park Site
-  Project Area Boundary

SOURCE
SAN FRANCISCO CITY PLANNING CODE

FIGURE 6: PLANNING CODE USE DISTRICTS



-  Executive Park Site
-  Project Area Boundary

HEIGHT and BULK DISTRICTS	HEIGHT LIMIT	HEIGHT ABOVE WHICH MAXIMUM DIMENSIONS APPLY	MAXIMUM BUILDING LENGTH	MAXIMUM DIAGONAL DIMENSION
230-G	230'	80'	170'	200'
40-X	40'	Bulk limits not applicable		
OS		Conformity with objectives, principles and policies of the Master Plan		

SOURCE

SAN FRANCISCO CITY PLANNING CODE

FIGURE 7: PLANNING CODE HEIGHT
AND BULK DISTRICTS

NOTES - Land Use and Zoning

/1/ Gary Hoover and Jeanette Dinwiddie, Campeau Corporation California, telephone conversations of July 25 and 26, 1984, respectively.

/2/ James Cooney, Planner, San Francisco Recreation and Park Department, telephone conversation, March 30, 1983.

/3/ James Lazarus, Deputy Mayor, City and County of San Francisco, telephone conversation, September 6, 1984.

/4/ Bayview Hunters Point comprises Census Tract Nos. 230, 231, 232, 233, 234, 606, 608 and 609; Little Hollywood and the Executive Park site are located in Census Tract No. 610; Visitation Valley consists of Census Tract No. 264. The boundaries of these tracts are not identical to the neighborhood boundaries, but are approximations of the neighborhood locations.

/5/ San Francisco Bay Conservation and Development Commission, January 1969 and amended July 1979, San Francisco Bay Plan, Plan Map 10, San Francisco and Brisbane.

/6/ City of Brisbane Resource Conversion Center, Final Environmental Impact Report, certified November 1980, State Clearinghouse No. SCH 7905141; Resource Recovery Facility, Final Environmental Impact Report, certified July 1982, State Clearinghouse No. SCH 81112410.

/7/ Richard Harper (Brobeck, Phleger & Harrison), Attorney for Sanitary Fill, Inc., telephone conversation, November 26, 1984.

/8/ Robert Ironside, Planning Director, City of Brisbane, telephone conversation, January 10, 1984.

/9/ City of Brisbane, February 1978, City of Brisbane Waterfront Plan and Environmental Impact Report, adopted August 1978.

/10/ Frank Ridley, Southern Pacific Development Company, telephone conversation, July 30, 1984.

/11/ The permitted floor area is slightly overestimated because the 60 acres of project area include internal roadways that would be publicly dedicated. (Publicly dedicated roads should be subtracted from the project area to determine the maximum allowable FAR.) The exact amount of project area that would be developed into roadways is not known at this time.

/12/ City and County of San Francisco, City Planning Code, 1979, Section 215. Within the C-2 district, dwellings are permitted at a density not exceeding the number of dwelling units per lot area in the nearest R district, but in no case shall the maximum density be less than the maximum density allowed in the RM-1 district (one unit per 800 sq. ft. of lot area). The nearest R district to the project area is RH-1 (one unit per 2,500 sq. ft. minimum lot size). Therefore, the RM-1 density ratio would be applicable to the project area.

B. VISUAL FEATURES

VISUAL CHARACTERISTICS

Project Area

Visual characteristics of the project area are defined by its topography. Few signs of the natural topography remain, as the hillside portions of the project area were graded and used to provide soil cover for sanitary land fill in the 1960's. The hillside area appears scarred and unnatural, due to the removal of vegetation and soil and the creation of a series of benches cut into the slope. The hillside area is visually prominent due to its topography and location next to Highway 101, a major entrance to San Francisco. The project area has mainly south-facing exposure on the flank of Bayview Hill. Three general areas with common visual characteristics may be described for the project area (see Figure 4, p. 28 for boundaries of the areas).

Area 1 is the "flat" area bounded by Executive Park Blvd. (North, East, and West) and Harney Way which contains OB 1 and OB 2. The hotel complex is planned for Area 1. Because of its lower-lying position on the site compared to other areas, Area 1 has low visibility from low-lying surrounding areas. However, this area can be seen from US 101, especially when traveling northbound (see Figure 8A, p. 43).

Area 2 is the visually prominent higher-lying portion of the site on the southern slopes of Bayview Hill. An office/retail complex is planned for Area 2 along with the approved OB 4. The visual appearance of Area 2 is varied (see Figure 8B and 8C, p. 43 and 45). The northernmost area consists of a series of benches cut into steep slopes. The tree and brush cover is in dense clusters near the summit of the hill in the west-central and central portions of the hill. Other portions of Area 2 have little or no vegetation. Below this area, toward the western end of the hillside, the terraces are fewer in number and the hillside has less severe grades.

Area 3 is the visually prominent lower slope of the eastern end of Bayview Hill. The eastern housing cluster would be developed on this portion of the site. Area 3 consists of two benches which rise above Harney Way but are not higher than Candlestick Park Stadium. The two benches are similar to those in Area 2, but are more widely separated and are flanked by moderate slopes (see Figure 8C, p. 45). The tops of the benches are barren. The lower step is used for overflow parking at Candlestick Park Stadium and the sides have a cover of weedy grasses and low-growing herbaceous plants. Visual elements



8A: VIEW OF THE SITE LOOKING NORTH FROM U.S. 101



8B: VIEW OF AREA 2 LOOKING NORTH

FIGURE 8: VIEW OF THE SITE

SOURCE
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

of Area 3 include steep slopes of red rock cut by flat-topped and steep-walled benches, scattered with trees and shrubs covering 30% of the area (see Figure 8C, p. 45). The upper hillside has been graded into a series of benches cut into the rock. Up to eleven benches have been cut into the eastern end of the slope. The hillside has been disturbed extensively and has an appearance similar to that of a quarry. The steep faces of the steps have a crenelated appearance created by erosion gullies.

Existing Executive Park Site

OB 1 and OB 2 are three- and four-story buildings, respectively, of contemporary design with predominantly horizontal architectural lines. OB 1 has a pre-cast concrete and stucco facade with dark glass and OB 2 has a blue-tile/metal-panel facade with reflective glass. These two office buildings are situated on gentle slopes, surrounded by landscaped lawns and parking. The streets are landscaped and lighted. OB 1 and OB 2 are visible from most surrounding areas, except portions of the Little Hollywood neighborhood directly west of US 101, where the freeway and landscaping interrupt the view (see Figure 8D, p. 45).

VISIBILITY

Most of the project area is highly visible from surrounding areas because of the prominence of Bayview Hill and the steeply sloping topography of the site, which rises from 30 ft. to 395 ft. in elevation. Most of the site is visible from the hillside areas directly west of US 101. From the intersection of Bayshore Blvd. / Blanken Ave. / San Bruno Ave. only the upper portions of Area 2 are visible (see Figure 8D, p. 45). From Little Hollywood, the upper western portions of the rooftops of OB 1 and OB 2 are visible; views from Little Hollywood of remaining portions of the site are blocked by US 101 and landscaping. Upper portions of Area 2 and parts of Area 3 are also visible from portions of the Visitacion Valley neighborhood and Geneva Towers, a high-rise apartment complex, one mile southwest of the project area. The site is not visible from Bayview Hunters Point because Bayview Hill blocks views from the north. Most of the site is visible from the baylands area of Brisbane. From the shoreline south of the site, most of the site is visible.

From US 101, the Executive Park site serves as a visual gateway to the City because of its location on the south-facing slope of Bayview Hill. Bayview Hill is one of the



8C: VIEW OF SITE LOOKING WEST FROM AREA 3



8D: VIEW OF SITE FROM LITTLE HOLLYWOOD



8E: VIEW OF SITE FROM BAYVIEW HILL

SOURCE
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

FIGURE 8 (CONTINUED): VIEW OF THE SITE

first distinguishable features of the City when one is approaching northbound on US 101. The project area portion of Area 1 is not visible from US 101 until one reaches the inclined portion of US 101 adjacent to the project area. From the Candlestick Park State Recreation Area east of the site, only the upper portion of Area 2 and the eastern part of Area 3 are visible. Overviews of the entire project area are available from the summit of Bayview Hill (see Figure 8E, above).

C. SHADOWS

On June 5, 1984, Proposition K, the Park Shadowing Initiative Ordinance, was passed by the voters in San Francisco. Generally, Proposition K prohibits issuance of a building permit for structures over 40 ft. in height that will cast any new shadow, between one hour after sunrise and one hour before sunset, on property under the jurisdiction of, or designated for acquisition by, the San Francisco Recreation and Park Commission. The City Planning Commission may hold a hearing and determine that any adverse impact on the use of the property because of the new shadowing would be insignificant, in which

case a building permit may be issued. Bayview Park, an undeveloped park site, adjoins the project area to the north, northeast and east, and is under the jurisdiction of the Recreation and Park Commission. Portions of the Candlestick Point State Recreation Area lie southeast of the project area, across Harney Way; this recreation area is under the jurisdiction of the State of California, and is not subject to the provisions of Proposition K.

As the hotel site in Area 1 is vacant, no shadows from this area are cast off-site or onto the existing Executive Park complex. In Area 2 and Area 3, shadows are cast within the project area by shrubbery and low trees on the slopes of Bayview Hill; however no shadows are cast off-site by on-site vegetation. At some times of the day and year, portions of the Recreation and Park strip between the project's proposed housing area and Jamestown Ave. are shaded by the higher slopes themselves. Existing and project shadow patterns for various times of the day and year are discussed in Chapter V., Environmental Impacts, Section C., pp. 87-91, and Figure 14, p. 89.

D. WIND /1/

WIND CHARACTERISTICS

In San Francisco, west, northwest, and southwest winds are the most frequent and strongest winds during all seasons. A west wind blows from west to east. Average wind speeds are highest during the summer and lowest during the winter; the strongest wind peaks occur in the winter. At all times of the year, the highest average wind speeds occur in mid- to late-afternoon, while the lowest occur in the early morning.

The strongest and most frequent wind direction near the project area (as measured at the San Francisco Airport) during most months is from the west./2/ Southwest winds are typically the second most frequent and second strongest winds. Northwest winds have had the second highest average speed during some years.

Wind conditions are a determinant of pedestrian comfort on sidewalks, plazas and open space areas. Near-street-level winds above about ten miles per hour (mph) begin to annoy pedestrians, disturbing hair, blowing dust, and causing loose clothing to flap. Winds above about 25 mph cause severe disturbance to hair and clothing; umbrellas are difficult to use, and pedestrians encounter resistance in walking from place to place. At wind speeds

above 35 mph, walking is difficult and gusts can become dangerous, blowing large objects around and in some cases causing pedestrians to lose their balance. At San Francisco's 56°F average temperature, a ten-mph wind creates a wind chill factor (perceived temperature under no-wind conditions) of about 46°F; a 25 mph wind results in a wind-chill factor of 39°F./3,4/

Existing wind speeds for the site were determined from wind tunnel tests using a scale model of the site and vicinity, and modeled average peak hour freestream wind speeds./5,6,7/ Ratios of modeled freestream wind speeds to wind speeds measured at various locations on a scale model were calculated. These ratios were then multiplied by actual average peak-hour freestream wind speeds (see note /5/ for sources of these actual speeds) to model existing average peak-hour winds for various locations on the site. The wind study for the site includes separate tests of the most common winds in San Francisco (west, southwest, and northwest winds) under existing conditions. The wind study was used to analyze the proposed project, and a development plan alternative (see discussion of Alternative D, p. 203). Refer also to Appendix C, p. A-22 for the locations of wind speed measurements.

Wind speed and direction in the project area are influenced by Bayview Hill, north of the site, and US 101, which is built on raised fill and forms a western barrier to the project area.

Average wind speeds, as used in the following discussion, refer to the average summer afternoon, which is the peak period for worst-case wind speeds in San Francisco. Therefore the descriptions of average wind speeds and chill factors are worst-case.

WEST WIND

Existing near-surface average summer afternoon winds range from six to 26 mph within and around the project area. The lowest winds occur on the western edge of the project area, in the lee (facing direction of the west wind) of the elevated portion of US 101. The central area of the project site as well as most of the hillside area have average winds between 14 and 21 mph.

The existing Executive Park complex, bounded by Harney Way and Executive Park Blvd. North (other than the western edge of this portion of the site), experiences winds of between 14 and 20 mph. This similarity of average winds can be explained by the openness of this area and its relatively flat topography.

Average peak-period winds are 19 mph at the undeveloped Candlestick Point State Recreation Area and average about seven mph inside of Candlestick Park Stadium, although turbulent at times. (Wind speeds under ten mph do not significantly affect temperature perception of pedestrians.) This seven mph is an average over the long-term; short-term gusts up to 20 mph can occur, especially in the late afternoon and early evening. Just north of the site, at Bayview Park and Bayview Hill, winds are between 21 and 31 mph.

Winds along the maximum gradient crest area of Bayview Hill accelerate rapidly around the rear (east) portion of the hill, causing extremely irregular and gusty winds between Jamestown Ave. and Candlestick Park Stadium.

NORTHWEST WIND

Existing near-surface average summer afternoon winds range from about three to 26 mph within and around the project area. The southwestern portion of the site generally experiences the lowest winds on site (six to 13 mph), although Highway 101 is less effective in reducing northwest winds than west or southwest winds. The eastern edge of the site, north of Harney Way and west of Jamestown Ave., has winds up to about 20 mph. North of Executive Park Blvd. North, average winds range from 13 to 22 mph, with most readings in the 19 to 22 mph range. Bayview Park has average wind speeds of about 23 mph, and Candlestick Point State Recreation Area averages 13 mph. Wind accelerates rapidly over the crest of Bayview Hill, resulting in turbulent eddies over Jamestown Ave Ext. Near-surface wind speed ratios were not measured for a northwest wind in Candlestick Park and the Little Hollywood area; these locations are cross-wind of the site, and far enough from the project area so that changes in the wind environment created by the project would have negligible effect.

SOUTHWEST WIND

Existing near-surface average summer afternoon winds range from five to 21 mph within and around the project area. The northwest portion of the site, bounded by Executive Park Blvd., US 101, and Bayview Park, currently has the lowest average wind speeds, in the five to nine mph range. US 101 is elevated just west of the site, and provides significant damping of winds blowing into the western third of the site. Winds increase from west to east across the site as the wind shadow effect of US 101 subsides. Winds in

IV. Environmental Setting

the triangle formed by OB 1, OB 2, and OB 3 average 12 mph and increase to about 16 mph at the eastern end of the site. Winds average five mph in the eastern part of the Little Hollywood area, ten mph in Candlestick Point State Recreation Area, and 17 mph in Bayview Park. Winds shed off the downwind (east) side of Bayview Hill create a highly turbulent wake which affects Candlestick Park. This results in gusty winds, combined with a nine mph average wind speed at ground level in Candlestick Park.

NOTES - Wind

/1/ This section is based on a study entitled "Wind-Tunnel Studies of the Executive Park," December, 1982, by Dr. Bruce White, prepared for Environmental Science Associates, Inc. A copy of this study is on file at the Office of Environmental Review. See also /7/, following. Dr. White is Associate Professor of Mechanical Engineering at the University of California at Davis. His involvement with this project was independent of the university.

/2/ Wind data were obtained from the San Francisco International Airport Weather Station.

/3/ Discussion of wind effects on pedestrians is based on San Francisco Planning and Urban Renewal Association, 1975, Impact of Intensive High Rise Development on San Francisco.

/4/ Wind chill estimates are based on U.S. Department of Commerce National Oceanic and Atmospheric Administration, Environmental Data Service, 1973, Climates of the United States.

/5/ The meteorological data that were used were acquired by the San Francisco International Airport Weather Station. The data were collected for the years 1948 to 1965 and are believed to be still valid. The climatology of the area would not change substantially, since it is influenced most by cold bodies of water offshore and warm air in the inland regions.

The meteorological data were collected at a height of 20 feet. The mean wind speeds (all hours, all months) were 13.13 mph, 14.16 mph and 9.56 mph for the northwesterly, westerly and southwesterly wind directions, respectively. According to Dr. Bruce White, if one assumes an atmospheric boundary layer height of about 1,000 feet, it means that the dimensionless wind-tunnel speed ratios previously used (see "Initial Study: Wind Tunnel Studies of the Executive Park" by B.R. White, December, 1982) must be multiplied by 39.3, 42.3 and 28.5 for northwesterly, westerly and southwesterly winds, respectively, to convert the wind-tunnel speed ratios to full-scale wind speeds (given in mph).

/6/ Dr. Bruce White, December 1982, Wind Tunnel Studies of The Executive Park; the analysis included 1) flow visualization tests, which placed a continuous stream of smoke at various locations to determine wind directions, and 2) hot wire anemometer measurements of wind speed ratios and turbulence intensities at 42 locations on and adjacent to the project site. Wind speeds were also determined from: Dr. Bruce White, Associate Professor of Mechanical Engineering, University of California at Davis, letter report, June 25, 1984, and telephone conversation, June 26, 1984. The letter report is on file and available for public review at the Office of Environmental Review, 450 McAllister St., Fifth Floor.

/7/ Dr. Bruce White, Associate Professor of Mechanical Engineering, University of California at Davis, letter report, June 25, 1984, and telephone conversation, June 26, 1984.

E. TRANSPORTATION, CIRCULATION AND PARKING

STREET SYSTEM

Access to the project site is provided by Alana Way, Harney Way, and Blanken Ave. as shown in Figure 9, p. 53. Harney Way provides direct access to the northbound on- and off-ramps of the Bayshore Freeway (US 101) and Alana Way provides access to the southbound ramps at Beatty Ave. via an underpass. Bayshore Blvd., a major north-south street which provides access to Brisbane and parts of Daly City and San Francisco, is accessible from the site via Blanken Ave. or via Beatty Ave. and Tunnel Ave. Blanken Ave. is a residential street serving the Little Hollywood neighborhood. Beatty Ave. is a local street in Brisbane that connects to Tunnel Ave., a north-south local street that serves industrial and commercial areas in both San Francisco and Brisbane. Harney Way south and east of the site connects with Jamestown Ave., which provides access to Candlestick Park Stadium and to the Bayview Hunters Point neighborhood. All streets which currently serve the site are designated as local streets and normally operate as two-way streets, except during pre- and post-event periods for Candlestick Park events, when Harney Way and Jamestown Ave. are regulated to operate as reversible one-way streets.

All of the intersections adjacent to the site are controlled with stop signs. The nearest signalized intersection is about one-half mile to the west at Bayshore Blvd. / Blanken Ave. / San Bruno Ave. This intersection is controlled by a three-phase, fixed-time signal.

TRANSIT

Five Muni motor coach lines operate in the vicinity of the Executive Park site area, as shown in Figure 9, p. 53. Two Muni lines, the 15-Third and 29-San Bruno, operate on Bayshore Blvd. (west of the site) and provide crosstown service through the San Francisco downtown area to North Beach and Nob Hill. The 30X-Freeway Express provides weekday daytime service from Bayshore Blvd. to downtown San Francisco and the Marina District. One of the Muni routes, the 56-Rutland, enters the site via Blanken Ave., providing neighborhood service between the site and the corner of San Bruno Ave. / Mansell St. A transfer point between the 56-Rutland and the 15-Third, 29-San Bruno and the 30X lines is located at Blanken Ave. and Bayshore Blvd.

The 29-Sunset operates between the Balboa Park BART station and Fitzgerald and Gilman Aves. in the Hunters Point / Bayview residential area north of the project site. There is a transfer point between the 56-Rutland and the 29-Sunset at Mansell St. and San Bruno Ave. Muni is currently studying a potential re-route of the 29-Sunset which would provide feeder service between the project site, the Balboa Park BART station, and the Bayshore Southern Pacific (SP) station (at Tunnel Ave. and Scavenger Road, about one-half mile from the site; see Figure 9, p. 53). The rerouting would require construction of an access grade crossing proposed to be restricted for use by Muni vehicles only, at the Southern Pacific Railroad tracks (southwest of the site), and a roadway extension./1/

Service between San Mateo County and downtown San Francisco is provided by SamTrans. Two lines (the 7B and 24B) operate on Bayshore Blvd. The 7B stops at Blanken Ave. / Arleta Ave. adjacent to the 56-Rutland stop. The 24B stops at Geneva Ave., about one mile southwest of the site and about one-third mile from the closest 56-Rutland stop. SamTrans Bayshore Freeway express routes (7A, 7R, 7Z, and 7F) do not stop in the project vicinity. Rail service to the southern Peninsula and downtown San Francisco is provided by CalTrans and the Southern Pacific Transportation Company from the Bayshore Station, about one-half mile west of the Executive Park site.

PEDESTRIANS

At present, the only sidewalks in the site area are on Executive Park Blvd. and Harney Way fronting the site. These sidewalks are used primarily by employees of OB 1 and OB 2 and secondarily by people attending events at Candlestick Park Stadium. As no other occupied uses are in the immediate project area, pedestrian circulation in the site area is extremely light. Pedestrian volumes in the site vicinity increase during events at Candlestick Park Stadium.

TRAFFIC

Traffic volumes on local streets in the project vicinity are light as a result of the low intensity of current land uses in the area. Table 6 in Section V., p. 104 (columns one and two) shows operating conditions for typical weekday p.m. peak hours (no activity at Candlestick Park Stadium) at intersections in the vicinity of the site. None of the intersections in the immediate project vicinity is signalized. The volume to capacity



EXECUTIVE PARK DEVELOPMENT PLAN

- LEGEND
- SAMTRANS ROUTE
 - MUNI ROUTE
 - EXISTING 56 MUNI
 - EXISTING 29 MUNI
 - SPRR

FIGURE 9: REGIONAL AND LOCAL
STREET SYSTEM AND
TRANSIT SERVICE

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



EXECUTIVE PARK DEVELOPMENT PLAN

LEGEND

- SAMTRANS ROUTE
- MUNI ROUTE
- EXISTING 56 MUNI
- EXISTING 29 MUNI
- SPRR

FIGURE 9: REGIONAL AND LOCAL STREET SYSTEM AND TRANSIT SERVICE



SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES

(V/C) ratios and Level of Service (LOS) (see Appendix D, Table D-3, p. A-29 for definitions of Levels of Service) have been calculated based upon the assumption that the unsignalized intersections would operate in a two-phase signal mode. As the intersections are controlled by stop signs, this assumption does not quite approximate the existing conditions. However, the approximation was considered sufficiently accurate to calculate data for comparative purposes. (See Appendix D, p. A-27 for a discussion of the method of intersection analysis.) Currently, all of the intersections in the immediate project vicinity are operating at Level of Service A during the p.m. peak hour.

Currently, there is a high volume of truck traffic in the project vicinity on Alana Way and the Bayshore Freeway. This truck traffic is generated by the Sanitary Fill Transfer Station and the Southern Pacific Tank Farm located across the freeway from the site. Truck traffic starts as early as 3:00 a.m. and is distributed throughout the day until the early evening hours./2/

The section of US 101 (the Bayshore Freeway) adjacent to the Executive Park site currently operates near capacity (LOS D) in the southbound direction during the p.m. peak hour./3/ Figure 15A, p. 106, shows the operating conditions for this section of freeway for the p.m. peak period. The northbound direction currently operates in free-flow conditions during the p.m. peak hour (LOS B)./4/

PARKING

About 550 parking spaces are currently located in surface lots surrounding OB 1 and OB 2. No on-street parking is provided on the streets surrounding the site.

EFFECT OF EVENTS AT CANDLESTICK PARK GAMES

Candlestick Park Stadium is a regional sports facility and a home field for both the San Francisco Giants baseball and Forty-niners football teams. It is located about one quarter mile to the east of the site. In 1983, 81 baseball games, 11 football games, and no concerts were scheduled for the stadium./5,6/

Harney Way and Jamestown Ave. Extension, which ordinarily operate as two-way streets, are designated as reversible one-way streets during pre-event and post-event periods.

IV. Environmental Setting

There is heavy traffic on the off-ramps of the Harney Way / Alana Way interchange during pre-event periods and on on-ramps during post-event periods. This heavy traffic often results in long delays, especially during football games, which draw higher attendances than the baseball games.

The Stadium provides about 15,300 parking spaces in the area surrounding it./7/ About 350 spaces in the OB 1 and OB 2 lots are used by Candlestick Park patrons for arranged overflow parking during weekend events./8/ Because of the special operations on Harney Way during events at Candlestick Park, traffic volumes on Blanken Ave., increase during events at Candlestick Park. Traffic approaching the stadium from local streets west of Bayshore Blvd. uses Blanken Ave. as a shortcut to the stadium. Blanken Ave. currently carries two-way traffic volumes of 1,500 vehicles per weekday at the eastern end and 3,000 vehicles per weekday at the western end. Traffic at Candlestick Park adds between 200 and 650 vehicles per event to Blanken Ave./7/

The City and County of San Francisco is currently considering renovation of Candlestick Park Stadium rather than construction of a new stadium in downtown San Francisco./9/

NOTES - Transportation, Circulation, and Parking

/1/ Muni planning is currently studying the possibility of the 29-Sunset route change. No definite program has been prepared to implement the change nor have any public meetings been held to discuss the route change. Anthony Bruzzone, Transit Planner, San Francisco Municipal Railway, telephone conversation, September 6, 1984.

/2/ Information on Sanitary Fill, Inc. truck traffic from Gorden E. Davis, Attorney for Sanitary Fill, Inc., testimony at public hearing, October 13, 1983.

/3/ Traffic volumes on US 101 are taken from Table IV.E.3, p. IV.E.35 of the Downtown Plan Draft EIR, EE81.3, March 16, 1984.

/4/ A.m. vehicle counts have not been taken. The mix of uses proposed for the project (office, retail, hotel and residential) would have a much greater impact on p.m. peak-hour conditions than on a.m. peak-hour conditions. Traffic from Candlestick Park Stadium would overlap with p.m. peak-hour traffic but not with a.m. peak-hour traffic. The freeway section is more congested during the p.m. peak hour than during the a.m. peak hour. (Frederick Dock, P.E., Environmental Science Associates, letters to Darnell Reynolds, District CEQA Coordinator, October 8, 1982 and January 5, 1983.)

/5/ Robert Mansi, Assistant Finance Director, San Francisco Recreation and Park Department, telephone conversation, September 7, 1984.

/6/ Florence Meyers, Secretary, San Francisco Giants Baseball Club, telephone conversation, September 7, 1984.

/7/ San Francisco Department of Public Works, October, 1981, Report on Candlestick Park Access. Traffic added to Blanken Ave. by events at Candlestick Park Stadium as stated in the 1981 Report on Candlestick Park is as follows:

<u>Event</u>	<u>Pre-Event (vehicles)</u>	<u>Post-Event (vehicles)</u>
Weekday Baseball	200	50
Weeknight Baseball	360	100
Weekend Baseball	460	130
Football	650	170

Pre-event traffic is eastbound on Blanken Ave.; post-event traffic is westbound on Blanken Ave. Traffic is in vehicles per event and typically occurs during a one- to two-hour period. Post-event traffic is less than pre-event traffic because there are more alternative routes available, which decreases the use of Blanken Ave.

/8/ James Smith, Property Manager, San Francisco Executive Park, telephone conversation, July 5, 1983.

/9/ Jim Lazarus, Deputy Mayor, City and County of San Francisco, telephone conversation, September 6, 1984.

F. AIR QUALITY

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six air pollutants: ozone (O_3), carbon monoxide (CO), total suspended particulates (TSP), lead (Pb), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). On the basis of the monitoring data, the Bay Area, including San Francisco, is currently designated a nonattainment area with respect to the national ozone and CO standards. A three-year summary of the data collected at the BAAQMD monitoring station nearest the site (about four miles north at 900 23rd St.) is shown in Appendix E, p. A-31, together with the corresponding national and/or state ambient air quality standards. These data indicate that San Francisco occasionally exceeds ozone, CO, and TSP standards.

Comparisons of these data with those from other BAAQMD monitoring stations reveal that San Francisco's air quality is among the best of all the developed portions of the Bay Area. Two of the three prevailing winds, westerly and northwesterly, blowing off the Pacific Ocean reduce the potential for San Francisco to receive pollutants from elsewhere in the region. San Francisco's air quality problems (primarily CO and TSP) are due largely to pollutant emissions from within the City, which also contribute to air quality problems (primarily ozone) in other parts of the Bay Area.

Regionally, the most severe and complex air quality problem is that of ozone. Ozone is not emitted directly, but is produced in the atmosphere over time and distance through a complex series of photochemical reactions involving emitted hydrocarbons (HC) and nitrogen oxides (NOx). No single source category accounts for most of the HC and NOx emissions, and the many mobile and stationary sources are spread throughout the region. Ozone standards are exceeded most often in the Santa Clara, Livermore, and Diablo Valleys, because local topography and meteorological conditions favor the buildup of ozone and its precursors there.

In contrast to ozone, CO is a sub-regional problem, because CO is a non-reactive pollutant with one major source category, motor vehicles. Ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. Emissions from local traffic usually dominate concentrations; however, during adverse meteorological conditions, a "background" component, resulting from the combined effects of many sources over a large area, can become a large part of the total concentration. CO standards are most often exceeded in the Santa Clara Valley, an area of high traffic density and susceptibility to adverse meteorology.

TSP also is a subregional problem. TSP levels are relatively low near the coast, increase with distance inland, and peak in dry, sheltered valleys. The primary sources of TSP in San Francisco are demolition and construction activities, and motor vehicle travel over paved roads.

In response to the Bay Area's ozone and CO nonattainment designations, the Association of Bay Area Governments (ABAG), BAAQMD, and the Metropolitan Transportation Commission (MTC) prepared and adopted the 1982 Bay Area Air Quality Plan, which establishes pollution control strategies to attain the national ozone and CO standards by 1987 as required by federal law. These strategies were developed on the basis of detailed subregional emission inventories and projections, and mathematical models of pollutant behavior, and consist of stationary and mobile source emission controls and transportation improvements. The BAAQMD, MTC, and California Bureau of Automotive Repair have primary responsibility for implementation of these strategies.

G. NOISE

NOISE CHARACTERISTICS OF THE PROJECT AREA

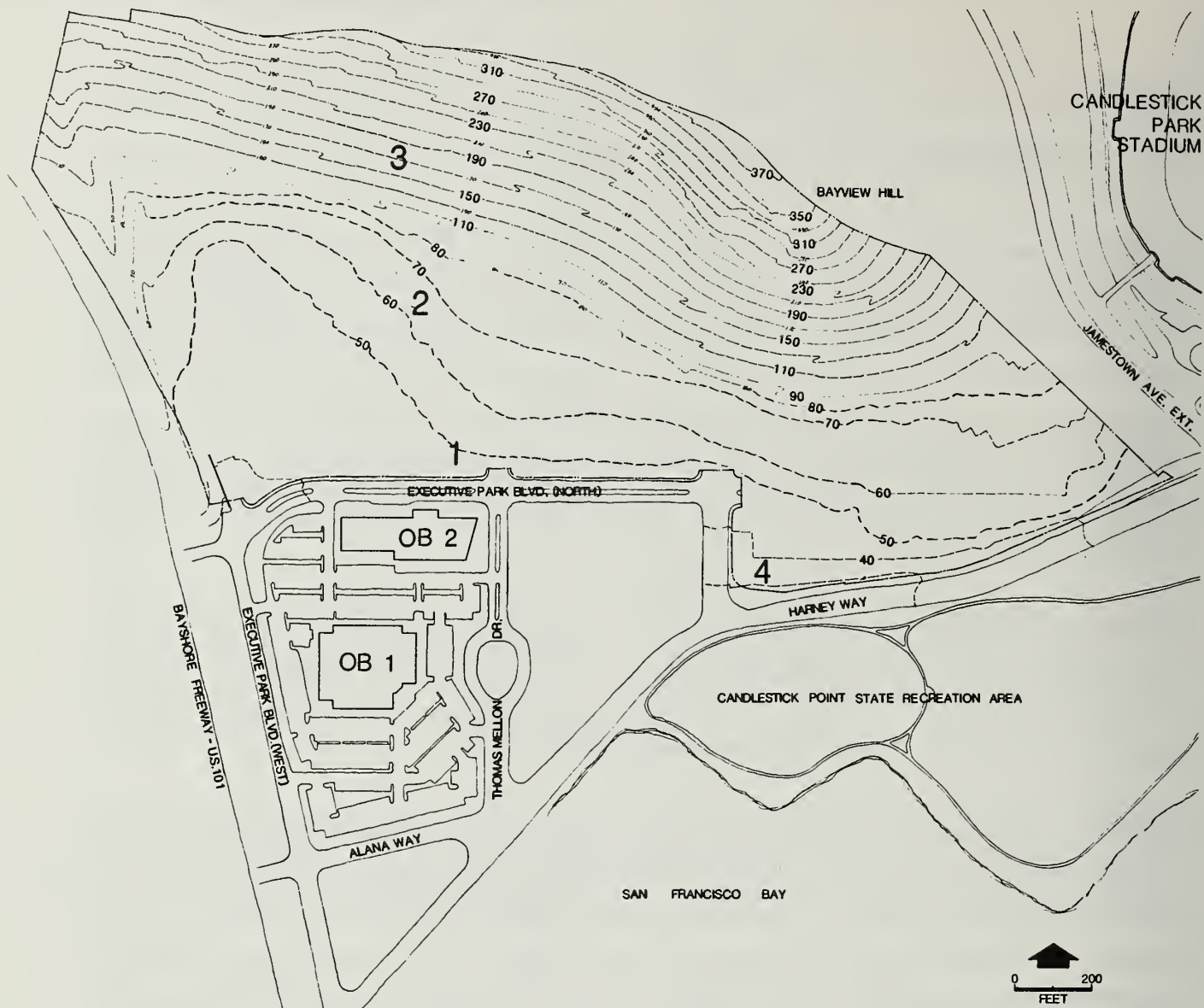
For the purpose of noise analysis, the project area can be characterized as a basin with steep slopes to the east and north. These slopes cause sound waves to be reflected upward against the hillside instead of allowing a usual horizontal attenuation/dissipation of sound energy with distance from the noise source. Noise levels are likely to be higher on the upper slopes of the site than at the toe of the slope because of this vertical reflection and concentration of sound energy. At the crest of the hill where the angle of the slope is reduced, noise levels diminish because sound waves are allowed to dissipate both vertically and horizontally.

The noise environment of the project area is dominated by traffic on US 101. In Area 1, the proximity of US 101 is partly offset by the grade separation, resulting in somewhat lower noise levels there than if there were no grade separation. Other noise sources include traffic on local streets, aircraft overflights, and wind.

Figure 10, p. 59, shows the location and results of ground-level noise measurements taken at four locations on the project site, on Tuesday, September 5, 1984, during the period of peak traffic (4:20 to 5:30 p.m.) on US 101. (There were no events at Candlestick Park Stadium contributing to traffic volumes during this time.) These measurements yielded a peak-period Leq (equivalent noise level) and Lmax (maximum noise level) at each location.^{1/} The (Leq) measurements at locations 1, 2, and 3 illustrate the relationship between noise levels and elevation described above. The (Leq) measurements at locations 1 and 4 illustrate the effect, also described above, of the US 101 grade separation on reducing noise levels in Area 1.

Although an exact calculation of the CNEL (Community Noise Equivalent Level) or Ldn (Day-Night Average Noise Level)^{2/} requires at least 24 hours of measurement data, the CNEL or Ldn can be estimated from peak-period noise measurements or calculations because traffic is the dominant noise source in this area. (Traffic noise levels are well studied and easily predictable.) For a typical 24-hour distribution of traffic volumes, the CNEL and Ldn can be estimated to be approximately equal to the peak-period Leq.

During events at Candlestick Park Stadium, associated traffic levels along Harney Way could increase the ambient noise levels. This is especially important during



SITE	TIME (9/5/84)	L_{eq}	L_{max}
1	4:20-4:30 pm, 5:13-5:15 pm	66 dBA	70 dBA
2	4:35-4:45 pm, 5:06-5:08 pm	67	70
3	4:50-5:00 pm	68	75
4	5:20-5:30 pm	66	76

FIGURE 10: NOISE MEASUREMENT LOCATIONS
AND EXISTING NOISE LEVELS

nighttime events when noise levels are weighted. Nighttime events currently occur approximately 45 times a year.^{/3/} Nighttime football games occur a maximum of twice a year; traffic clearance times after football games are 95 minutes along Harney Way, and 77 minutes along Jamestown Ave. extension. Traffic clearance times after baseball games are 47 minutes along Harney Way, and 30 minutes along Jamestown Ave. extension.

NOISE POLICIES AND REGULATIONS

The Environmental Protection Element of the Comprehensive Plan identifies acceptable noise environments for particular land uses, as shown in Table 2, p. 61. Noise levels in all areas of the site are estimated to be between 65 and 70 dBA/^{4/} Ldn (see Figure 10, p. 59). In such a noise environment, office and commercial development would be allowed, with the installation of noise insulation features possibly required. Residential and hotel use would be discouraged, or if allowed would be required to install noise insulation features.

Title 25 of the California Administrative Code, Noise Insulation Standards, applies to all new multi-family residential structures, including hotels. In exterior noise environments of 60 dBA CNEL or more, which includes all of the project site, an acoustical analysis of the structures would be required to ensure that the interior annualized CNEL would not exceed 45 dBA CNEL.

NOTES - Noise

/1/ Leq, the equivalent noise level, is the average energy content of the noise measured over any specified time period. Lmax, the maximum (peak) noise level, is the maximum energy level of the noise measured over any specified time period.

/2/ CNEL, the Community Noise Equivalent Level, and Ldn, the Day-Night Average Noise Level, are 24-hour time-averaged noise descriptors. The CNEL adds a 5-dBA "penalty" for evening noise (7:00 p.m. to 10:00 p.m.), and a 10-dBA penalty for nighttime noise (10:00 p.m. to 7:00 a.m.), to account for the greater sensitivity of people to noise during these periods. The Ldn adds only the 10-dBA nighttime penalty, and thus is slightly lower than the CNEL.

/3/ Peter Ash, Planner, San Francisco Recreation and Park Department, telephone conversation, January 3, 1983.

/4/ Environmental noise is measured in units of dBA, or A-weighted decibels. The A-weighting simulates the response of the human ear to sounds of various frequencies.

TABLE 2: LAND USE COMPATIBILITY FOR COMMUNITY NOISE

<u>Land Use Category</u>	<u>Sound Levels(Ldn) and Land Use Implications</u>		
	<u>55-60</u>	<u>60-65</u>	<u>65-70</u>
Residential and Hotel	A	B	B-C
Office Buildings	A	A	A-B
Commercial (Retail, Restaurants)	A	A	A-B

A: Satisfactory with no special noise insulation requirements.

B: New construction or development should not be undertaken until a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

C: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

SOURCE: City and County of San Francisco Comprehensive Plan, September 19, 1974, Environmental Protection Element, p. 19.

H. ENERGY

Electricity and natural gas are supplied to San Francisco by Pacific Gas and Electric Company (PGandE). New demands for electricity in northern California will be met primarily with energy derived from coal, nuclear, and hydroelectric sources. Cogeneration (production of electricity from waste heat generated by industrial processes), wind turbine generators, and additional geothermal power development will also supplement existing supplies. PGandE has completed its Helms Pumped Storage plant; full commercial operation began June 30, 1984./1/ PGandE also plans to generate power at its Diablo Canyon nuclear plant. Low-power testing of the Diablo Canyon plant's Unit One reactor has been completed. Full-power operation of the Unit One reactor and low-power testing of the Unit Two reactor have been postponed pending final resolution of remaining legal challenges to the plant's operation./2/

In addition to obtaining electricity from new power plants, PGandE plans increased purchases of electricity from other utilities, primarily from surpluses generated by hydroelectric and nuclear plants in Washington. These surpluses are uncertain due to

the recent cancelling of plans for two nuclear plants by Washington Public Power Supply System and the delay in construction of another, and increased demand for energy in the Pacific Northwest. PGandE has long-term agreements with Southern California utilities (California Power Pool Agreement) and Pacific Northwest utilities (Pacific Northwest-Southwest Intertie) for energy pooling, exchange, and purchase that will be used in part to meet future peak-period demand./3/

Peak demand for electricity within the PGandE service area, if combined with unplanned shutdown of generating facilities, could eliminate PGandE's reserve margin and require purchases of electricity from other utilities to avoid power outages. In this way, PGandE could meet current peak demand for electricity in San Francisco without operating the Diablo Canyon facility./4/

ON-SITE ENERGY CONSUMPTION

The project area is unoccupied, and no energy is consumed. OB 1 and OB 2 consume about 2.1 million kilowatt hours (kWh) of electricity per year and about 3.2 million cubic feet (cu. ft.) of natural gas per year./5/ The estimated total annual energy consumption on the existing Executive Park site is about 25 billion Btu at source./6/

ENERGY CONSERVATION REGULATIONS, PLANS, AND POLICIES

Energy efficiency of new development in San Francisco is regulated by state and local requirements. At the state level, residential and non-residential buildings are regulated by Title 24 of the California Administrative Code. At the local level, the San Francisco Administrative Code (Section 31.26(c)) requires energy impact analyses as part of EIRs. In addition, the Energy Element of the San Francisco Comprehensive Plan and the second Citizens Energy Policy Advisory Committee report contain plans and policies for energy efficiency and conservation measures for existing and proposed development in the City (see Appendix F, p. A-33 for a discussion of these regulations, plans and policies)./7/

NOTES - Energy

/1/ John Angus, New Service Representative, Pacific Gas and Electric Company, telephone conversation, September 6, 1984.

/2/ Richard Davin, Coordinator of Nuclear Information, Public Relations Department, Pacific Gas and Electric Company, telephone conversation, September 6, 1984.

/3/ Moody's Investment Service, 1980, Moody's Public Utility Manual.

/4/ Richard Davin, Coordinator of Nuclear Information, Public Relations Department, Pacific Gas and Electric Company; telephone conversation, December 13, 1983.

/5/ Based on energy consumption monitoring of OB 1 from January through December 1981 (Jon M. Bernard, Vice President, Air Conditioning Company, Inc., letter report, October 4, 1982), and on PGandE bills from January to December, 1983 for both OB 1 and OB 2.

/6/ The British thermal unit (Btu) is a standard for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water one degree F. (251.98 calories) at sea level. The term "at source" means that adjustments have been made in the calculation of the Btu energy equivalent to account for losses in energy which occur during generation and transmission of the various energy forms, as specified in: ERCDC, 1977 Energy Conservation Design Manual for New Nonresidential Buildings, Energy Resource Conservation and Development Commission, Sacramento, CA. and Apostolos, J.A., W.R. Shoemaker, and E.C. Shirley, 1978, Energy and Transportation Systems, California Department of Transportation, Sacramento, CA., Pro. #20-7, Task 8.

/7/ Citizens Energy Policy Advisory Committee, 1982, Recommendations for Reducing Community Energy Costs.

I. GEOLOGY, SEISMICITY AND HYDROLOGY

GEOLOGY

A description of site geology is contained in the San Francisco Executive Park Final EIR (August 12, 1976). That information is incorporated here by reference and is summarized and augmented where necessary in the discussion below. The project site is divided into two physiographic types: a steeply sloping hillside with horizontal terraced benches in the northern portion of the site and a relatively level lowland area in the southern part. The northern portion of the relatively level area was once the southern slope of Bayview Hill and had a horizontal to vertical slope of between 2.5:1 and 3:1./1/ (A 1:1 slope would be a 45 degree slope.) Project area elevations range from 10 ft. to 40 ft. (San Francisco Datum) along the southern boundary and 250 ft. to 390 ft. along the northern boundary. Bayview Hill crests at an elevation of 450 ft.

The northern hillside portion of the site is underlain by three mappable rock types which are exposed in the hillside cuts: chert, sandstone/shale, and greenstone (see Figure 11, p. 65). The chert is a hard, sedimentary rock that is present at the site in two forms:

as a thin-layered sequence with layers of shale and as a massive, structureless rock. A thin-layered chert caps the ridgetop. Where chert layers are in the same direction and angle as the slope, landsliding has occurred along contacts with the shale layers. A central zone of sandstone and shale (softer more permeable rocks), about 400 ft. wide, is flanked on both sides by greenstone (a harder, erosion-resistant rock) in the north and northeastern parts of the site.

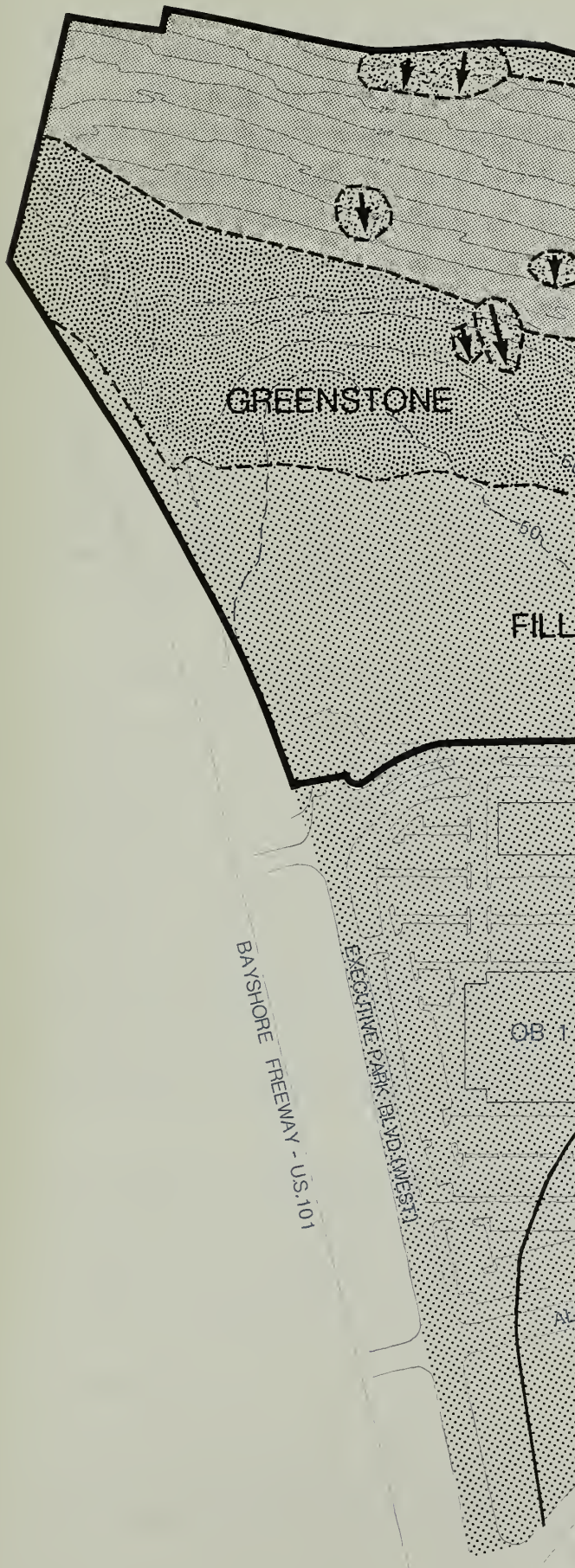
The lowland area in the southern part of the site has several different soil conditions. The northern portion of the fill area consists of shallow fills underlain by firm soils and bedrock at depths ranging from 3 ft. to 24 ft. The southern portion of the lowland area contains about 15 to 20 ft. of fill over about 10 ft. of soft marsh deposits (Bay mud) (see Figure 11, p. 65). The fill was placed approximately 25 years ago and has consolidated.^{/2/} Separating these two areas is a transitional zone composed of fills ranging in thickness from three to seven feet over marsh deposits that vary from a few to eight ft. in depth. Firm soils occur below the marsh soils.

Existing slope cuts are fairly stable; as a result of grading activities, some slopes are unstable and a number of landslides have occurred in the past (see Figure 11, p. 65). Numerous small landslides and two moderate-sized landslides have occurred on the site at the contact between different rock types, especially between chert and other rock types. The two largest slides are rock slides near the top of the existing cut slope at the upper edge of the property. According to a 1977 site investigation, the slides are still active, but have become fairly stable so that only a small amount of sliding still occurs.^{/2/} A May 1984 site investigation by ESA found two additional small-to-medium-size slope failures in the north-central part of the site. Evidence of local erosion was found in several parts of the site; a small ephemeral channel is forming in the greenstone at the western edge of the site. All of these new failures are localized. Additional local erosion and shallow slope failures could be triggered by heavy rains in the future.

SEISMICITY

The site is located within the seismically active San Francisco Bay region. No active faults are known to exist within San Francisco, but several active faults in the region could affect the site.^{/3/} The San Andreas Fault, which produced the 1906 (San Francisco) earthquake, is located six miles southwest of the site; the Hayward Fault is 13 miles east of the site.

EXECUTIVE PARK DEVELOPMENT PLAN



- PROJECT AREA BOUNDARY
- CHERT
- GREENSTONE
- SANDSTONE/SHALE
- FILL
- LANDSLIDE
- DIRECTION OF LANDSLIDE
- APPROXIMATE CONTACT BETWEEN UNITS

FIGURE 11: EXISTING GEOLOGY AND TOPOGRAPHY

Figure does not include proposed grading for OB 4.; grading for OB 3 is shown.

HELLMUTH, OBATA, & KASSABAUM
GEOLOGICAL ENGINEERING
BY: HARDING-LAWSON ASSOCIATES, 1977



EXECUTIVE PARK DEVELOPMENT PLAN

LEGEND

- PROJECT AREA BOUNDARY
- CHERT
- GREENSTONE
- SANDSTONE/SHALE
- FILL
- LANDSLIDE
- DIRECTION OF LANDSLIDE
- APPROXIMATE CONTACT BETWEEN UNITS

**FIGURE 11: EXISTING GEOLOGY
AND TOPOGRAPHY**

NOTE Figure does not include proposed grading for OB 4., grading for OB 3 is shown

SOURCE

BASE: HELLMUTH, OBATA, & KASSABAUM

GEOLOGY: HARDING-LAWSON ASSOCIATES, 1977

The San Andreas Fault can be expected to produce both major and minor earthquakes in the future. The expected recurrence interval for an earthquake of Richter magnitude greater than 8.0 on the northern portion of the San Andreas Fault is 75 to 200 years./4,5/ The 1906 San Francisco Earthquake had a Richter magnitude of about 8.3. Earthquakes with magnitudes of 5.5 or greater are considered capable of causing structural damage. The Hayward Fault is capable of producing an earthquake of Richter magnitude 7.0 or greater. The expected recurrence interval for an earthquake with a Richter magnitude of 6.0 to 7.0 on the Hayward Fault is 10 to 100 years./5/

The hillside portions of the site are composed mostly of dense and moderately hard rock that will exhibit generally favorable response to seismic forces, with relatively high-frequency but low-amplitude ground motions./1/ The lowland portion of the site will probably display moderate response to earthquake forces, varying in magnitude according to the depth of various fill, Bay mud and soil deposits.

It is estimated that the intensity of ground shaking for the northern and northeastern portions of the site would be "weak" (on the San Francisco Intensity Scale, which rates intensity in five steps from "weak" to "violent") in the event of an earthquake of Richter magnitude 7.0 or greater. "Weak" ground shaking could cause structural damage equivalent to occasional fall of brick chimneys and plaster./6/ In the southwestern portion of the site, ground shaking intensity would be "very strong" and could cause badly cracked to occasionally collapsing masonry, and lurching with occasional collapse of frame buildings built on weak underpinnings. Intensity of ground shaking would vary with the depth to bedrock; in the northern and eastern portions, bedrock is at the surface or covered with a few to several feet of firm soil, whereas in the southern part variable thicknesses of fill, natural soil and Bay mud occur.

The presence of compressible fill over Bay mud presents a potential subsidence hazard in the southern portion of the Executive Park site (see Figure 11, p. 65). Liquefaction and/or densification of sandy soils at the site is unlikely because the soils are typically dense and consist mainly of silt and clay./7/

HYDROLOGY

No streams or lakes exist within the project area. Springs occur on the upper slopes and are concentrated in areas of weak, sheared rock. Groundwater seepage is occurring on

several cut slopes. This seepage is concentrated in areas of recent slides and contacts between different rock types, and produces small ponds on the benches.

Test borings at the site of the proposed OB 4 indicate the groundwater level is about 18 to 20 ft. below the surface./8/ The groundwater generally becomes deeper as the elevation on the site increases (to the north and east), although the groundwater is abnormally high in areas of highly fractured or sheared rock. The groundwater level is about six to eight feet below the surface within the area underlain by Bay mud deposits in the southern portion of the project area.

NOTES - Geology, Seismicity and Hydrology

/1/ Dames & Moore, 1969, Preliminary Geological Engineering Study, Slope Stability and General Subsurface Conditions, Proposed Development, Candlestick Cove, San Francisco, California.

/2/ Harding-Lawson Associates, 1977, Geotechnical Investigation, San Francisco Executive Park, San Francisco, California.

/3/ An active fault is a fault which has a historic record or other geophysical evidence of movement within approximately the last 10,000 years.

/4/ The Richter Scale is a logarithmic scale developed by Charles Richter to measure earthquake magnitude by the energy released, as opposed to earthquake intensity as determined by effects on people, structures and earth materials.

/5/ Jim Deitrich, Director, Earthquake Prediction Program, telephone conversation, May 3, 1982 U.S. Geological Survey.

/6/ URS/John A. Blume & Associates, 1974, San Francisco Seismic Safety Investigation, prepared for the Department of City Planning, City of San Francisco.

/7/ Liquefaction is a phenomenon in which there is a sudden loss of strength in loose, water-saturated granular soils during seismic shaking.

/8/ Harding-Lawson Associates, September 1982, Soil Investigation, San Francisco Executive Park Office Building 4, San Francisco, California.

J. ECOLOGY

FACTORS AFFECTING SITE ECOLOGY

The project area is the south slope of Bayview Hill (also known as Candlestick Hill). Bayview Hill is undeveloped open space available for continued colonization, maintenance, and propagation of native vegetation and wildlife.

Physical conditions determine the vegetation and wildlife capable of occupying the project area. Because of its southern exposure, with few cooling fogs, the project site has a relatively warm microclimate that is unusual on the upper San Francisco peninsula. Following rains, little moisture is retained because of the slope of the site and the thin, gravelly soil; there are some small ponds on the benches that appear to be fed by water seeping out of the cuts in the hillside. The winds blowing across the site increase the evaporation rate and dry out the soil. The exposure of the project area, lack of shade, and thin, porous soil result in high soil temperatures. The sloping, northern portion of the project area is subject to heavy storm runoff that washes away most of the soil produced by weathering and vegetation.

VEGETATION

As a result of past excavation, the hillside forming the northern portion of the site lacks substantial planting, leaving bare, scarred hillside areas. Previous revegetation programs at the top of the hill have begun to show some results./1/

The areas that have been planted include the northeast portion of the site where trees were planted at least eight years ago. Planted cypress trees in this area are mature but not dense. In addition, the northwest benches have been planted with trees and shrubs including Monterey pine, acacia species, ceanothus, Bishop pine, hollyleaf cherry and poplar species. Slopes separating these benches are not as steep as those to the west and during the most recent planting, about two-three years ago, approximately eight acres of these slopes were hydroseeded with a wildflower mix. At that time, a drip irrigation system was also installed. As of June, 1984, about 50% of the plants installed in this subarea have been replaced. Some of the vegetation has begun to establish itself, but plants are still small. The irrigation system has been damaged by earth and rock movement, small animals, and vandalism./1/

Lower portions of the project area, previously disturbed by grading, have been colonized by California poppy, owl's clover, lupine, asters, bindweed, broom, buckwheat, thistle, mustard, wild radish, clover, checker (bloom), filaree, eriogonum, tarweed, fennel, other herbs and forbs, and annual grasses./2/ Most of the latter plants are pioneer species that commonly are the first plants to establish themselves on disturbed sites. Patches of cattails and other plants requiring wet soils grow where small ponds of water are maintained by seeps in the hillside.

WILDLIFE

Butterflies and other insects are abundant, primarily because of the warm, dry microclimate and the stands of fennel, aster, and other vegetation growing on the western lower portion of the site. Wildlife observed include western fence lizard, sparrow hawk, common flicker, Anna's hummingbird, killdeer, mockingbird, house finch, mourning dove, and red-tailed hawk./2/ Signs of pocket gophers, rabbits, dogs, and ground squirrels were evident. In addition to those observed, the site is probably used by several species of song birds, reptiles, amphibians, and small mammals. Raccoon, opossum, and skunk probably inhabit denser vegetation at the crown of Bayview Hill, north of the site, and include the site in their nocturnal foraging. Ponded water observed on the site is a source of surface water accessible to local wildlife.

RARE AND ENDANGERED SPECIES

Three species of endangered or rare butterflies occur in the vicinity, the endangered San Bruno elfin (Callophrys mossii bayensis) and Mission blue (Plebejus icarioides missionensis) butterflies, and the rare Callippe Silverspot (Speyeria callippe callippe). The distribution of these butterflies is determined largely by the presence of their host plants. The host plant for the San Bruno elfin butterfly is stonecrop (Sedum spathulifolium). The host plants for the Mission blue butterfly are perennial lupines such as Lupinus albifrons, and Eriogonum latifolium. The host plant for the Callippe Silverspot is Viola pedunculata./3/

The San Bruno elfin, Mission blue, and Callippe Silverspot have not been observed on the Executive Park site, nor were their food hosts observed. It is unlikely that these butterflies inhabit the site./3/

Coast rock cress (Arabis blepharophylla), listed by the California Native Plant Society (CNPS) as rare, but not endangered, occurs on San Bruno Mountain, in McLaren Park, and on the northern side of Bayview Hill./4/ CNPS lists the coast rock cress as formerly occurring on the Executive Park site, but now extirpated./4/ Diablo helianthella (Helianthella castanea), listed by the CNPS as rare and endangered, is also recorded as formerly occurring on the site but now extirpated from the site./4/ Neither of these species has been recently observed to occur on the site./2/.

NOTES - Ecology

/1/ Sara Liss-Katz, Landscape Architect, Hellmuth, Obata and Kassabaum, Architects, interview, June 20, 1983.

/2/ Field visits were conducted by Environmental Science Associates on October 12, 1982; on March 19, 1983; on June 10, 1983; and on May 26, 1984.

/3/ Dr. Richard Arnold, Research Fellow, University of California, Berkeley, "Entomological Survey on San Francisco Executive Park for Rare and Endangered Species", letter report, May 31, 1983. A copy of this report is on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor.

/4/ California Natural Diversity Data Base, October, 1982.

K. EMPLOYMENT, HOUSING AND FISCAL FACTORS

EMPLOYMENT

As the project area is unoccupied, there is no employment. OB 1 and OB 2, which are part of the existing Executive Park complex, employ about 650 persons. As of July 1984, OB 1 was almost completely leased and OB 2 was about 70% leased./1/ Tenants of OB 1 and OB 2 are mostly business machines, sales, insurance, and marketing businesses and professionals./1/

OFFICE MARKET

The project area is located six miles from downtown San Francisco, the major office center in the Bay Area. Downtown San Francisco contains approximately 65.5 million gross sq. ft. of office space. As of March 1984, another 19.0 million gross sq ft. of net new office space in downtown San Francisco is under construction, approved or under formal review./2/

Because of its location on the San Mateo / San Francisco County line, the Executive Park site is related to both the San Francisco and San Mateo County office markets. About 17 million sq. ft. of office space is under construction or proposed for development in central and northern San Mateo County along the Bayshore Freeway Corridor (US 101) (see also Appendix H, Table H-4, p. A-44)./3/ A total of about 6.6 million sq. ft. of office space currently exists in this area./4/

Square footages of developments proposed for downtown San Francisco and San Mateo County do not include the 1.15 million sq. ft. of office space proposed as part of the project.

Tenants attracted to the Executive Park site are service-oriented firms that do not require a downtown location./5/ Factors which have attracted firms to the Executive Park site are lower rents (an annual average of \$22 per sq. ft. at the site as compared to about \$35 per sq. ft. for downtown office space); the provision of free parking; direct access to US 101; and the close proximity to the airport (especially for regional sales offices)./6/ Average rents at OB 1 and OB 2 are comparable to rents in northern San Mateo County, which range from \$22 to \$27 per leasable sq. ft. per year./7/

EMPLOYEE RESIDENCE AND HOUSING FACTORS

Employees of OB 1 and OB 2 were surveyed in October, 1982 to determine their incomes, housing preferences, and transportation patterns (see Appendix D, Figure D-1, p. A-24 for a copy of the survey questionnaire).

The survey results indicate that about 37% of then-current employees at Executive Park resided in San Francisco and 38% in San Mateo County. A 1980 survey of the workers at OB 1 found that 37% of the workers lived in San Francisco and 43% on the Peninsula. The remainder lived in the East Bay (12%) and North Bay (8%); see Table 13, p. 146. The proportion of San Francisco residents was less than that of workers in the C-3 district of downtown San Francisco (i.e., 56% of C-3 district office workers lived in San Francisco). The proportion of San Mateo County residents working at Executive Park (35%) was higher than for C-3 district workers, 12% of whom were estimated to live in San Mateo and Santa Clara Counties./8/

Under the January 1982 OHPP Interim Guidelines, the City Planning Commission could require the project sponsor to provide units in San Francisco to meet the estimated housing demand of the project./9/ The OHPP guidelines are currently being revised. As currently drafted (July 19, 1984), the implementing ordinances for the revised guidelines would contain provisions for estimating net housing demand in both the C-3 and non-C-3 districts, and would require that 50% of the housing units be affordable to low- and moderate-income persons for at least 20 years. The ordinances would also contain provisions for in-lieu payments (instead of housing construction), and an exemption for existing businesses./10/

FISCAL FACTORS

The assessed value of the project site in fiscal year 1983-84 was about \$1.29 million. At the fiscal year 1983-84 property tax rate of \$1.15 per \$100 of assessed value, the site generates about \$14,830 in total property tax revenues (including general City bond repayment). Of this amount, the City's General Fund receives \$11,280. The complete distribution of these revenues is shown in Table 3, p. 72.

The project area is currently unoccupied and generates no additional tax revenues for the City and County of San Francisco. Costs incurred by the City to service the project area are negligible.

TABLE 3: DISTRIBUTION OF PROPERTY TAX REVENUES FROM THE EXISTING PROJECT AREA, FISCAL YEAR 1983-84

<u>Agency</u>	<u>Ad Valorem Tax Rate*</u>	<u>Percent*</u>	<u>Revenues*,**</u>
City and County of San Francisco			
General Fund	0.874	76.0	\$ 11,280
Open Space Acquisition	0.025	2.2	320
Bond Repayment	0.081	7.1	1,050
City Superintendent Schools	0.001	0.1	10
S.F. Community College District	0.014	1.3	185
S.F. Unified School District			
General Purpose	0.077	6.7	995
Debt Service	0.008	0.7	100
Bay Area Air Quality Management District	0.002	0.2	25
BART			
General Fund	0.006	0.6	80
Debt Service	0.061	5.3	785
TOTAL	\$1.15	100.0%	\$14,830

* Sums of Figures do not agree with totals because of rounding.

** Based on the 1983-84 tax rate of \$1.15 per \$100 of assessed value and an assessed value of \$1,290,000.

SOURCE: San Francisco Controller's Office; calculations by Environmental Science Associates, Inc.

NOTES - Employment, Housing and Fiscal Factors

- /1/ Gary Hoover, Property Manager, San Francisco Executive Park, telephone conversation, July 12, 1984.
- /2/ Cumulative Office Development in Downtown San Francisco as of March 10, 1984, Office of Environmental Review, City and County of San Francisco.
- /3/ Metropolitan Transportation Commission, September 9, 1982, Travel Impacts of Proposed Development Along Route 101, and Blayney-Dyett, Urban and Regional Planners, July 1982, Proposed Specific Plan: Offshore Office Park and Baylands Development Area Brisbane.
- /4/ Coldwell Banker, December 1982, The Commercial Real Estate Market in The San Francisco Bay Area, 1983.
- /5/ Mills-Carneghi Incorporated, San Francisco Executive Park Marketing Study, August 22, 1980.
- /6/ Barrie Hart, Office Leasing Broker, Cushman and Wakefield, telephone conversation, January 8, 1983.
- /7/ Gary Garton, Salesman, Coldwell Banker, telephone conversation, September 5, 1984.
- /8/ San Francisco Department of City Planning, Montgomery/Washington Building Supplemental EIR, July 23, 1984, p. 28.
- /9/ The San Francisco Office/Housing Production Program, January, 1982.
- /10/ San Francisco City Attorney's Office, July 19, 1984, Draft Amendment to Part II, Chapter II of the San Francisco Municipal Code to Impose Conditions on Approval of Permit Applications Designed to Mitigate Housing Problems Caused by Projects.

V. ENVIRONMENTAL IMPACTS

EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study of a mixed-use development for the project area was published September 24, 1982, and a determination was made that an Environmental Impact Report (EIR) was required. The currently proposed project contains the same uses and total square footages as the project analyzed in the Initial Study; however it differs in the design and location of uses; the addition of housing and parking spaces; and the increase in the size of the project area (see p. 3 for a detailed description of these changes). With one exception (shadows), environmental effects of the previous 1983 development that were determined by the Initial Study to be insignificant or mitigated through measures included in the project remain so for the currently proposed project. Those potential effects are: relocation of residents or businesses, airport noise, construction noise, public services and utilities, hazards, and historical and archaeological resources. The above issues are not discussed further in this EIR. The Initial Study, included as Appendix B, p. A-6, may be referred to for a discussion of these issues. Analysis of shadow effects has since been included in the EIR as a potentially significant effect because of recent passage of Proposition K governing shadowing on public open space.

Not all impacts discussed in this section are physical environmental effects as defined by the California Environmental Quality Act (CEQA). They are included here for informational purposes only.

PHASING

CEQA requires that all phases of a project be considered (Sections 15126 and 15165). Therefore, the following impact section analyzes full development of the project and considers phasing only when construction of a particular phase would change the nature or magnitude of an impact. The proposed project would be developed in six phases over a

ten-year period, ending in 1996. The "full-buildout" analysis describes in static terms what would be a gradual, staged development over ten years. This analysis describes project impacts as if total development would occur at once. However it does not account for adjustments in market conditions, public policy, or behavior which would occur as the project proceeds toward full development. Known or expected changes in market conditions, policies and behavior have been incorporated into the impact analysis but it is not possible to predict all changes that could occur during buildout and after full operation of the project.

A. LAND USE AND ZONING

LAND USE

The project would replace 50 acres of unoccupied land with 24 acres of office, residential, and retail uses, and develop 10 acres of land currently approved for parking for OB 1-OB 3 into a hotel/meeting facility. The total project floor area would be about 1.85 million gross sq. ft. About 26 acres, above approximately the 200-ft. elevation, would be retained as publicly accessible open space with landscaping and hillside trails. The project would intensify the scale and diversity of uses at the Executive Park site, and in the site vicinity.

The project area is isolated on the north by the topography of Bayview Hill from the Bayview Hunters Point neighborhood. The project is physically separated by US 101 from Little Hollywood and Visitacion Valley, except for connection to those neighborhoods via the Blanken Ave. and Alana Way underpasses. The project probably would not change the character or mix of uses in these surrounding neighborhoods and in nearby industrial areas. Because the project area is physically separated by US 101 from nearby industrial areas, it is not expected to have a direct impact on industrial sites, including that of Sanitary Fill, Inc., nor would it affect the light industrial uses currently under consideration by Southern Pacific. However, the project possibly would cause indirect growth-inducing effects on nearby land uses. For industrial land, these effects could include increased pressure to convert industrial sites to commercial uses which would be more compatible with the proposed project than industrial uses. See also Section V.L Growth Inducement, p. 158, for further discussion of indirect, growth-inducing effects on nearby industrial sites.

Increased patronage by project residents, office workers and hotel visitors could indirectly stimulate business for the restaurants, drug stores, grocery markets, and retail stores along Third St., Bayshore Blvd., Leland Ave., and San Bruno Ave. (see also Section V. L. Growth Inducement, p. 158).

Bayview Park is a public, unimproved open space. The hillside open space proposed as part of the project would provide an opportunity for continuous open space with Bayview Park. The project would, however, preclude the option of providing a continuous public open space from Bayview Park to Candlestick Point State Recreation Area.

Development of the project area could increase the patronage of existing and proposed portions of the Candlestick Point State Recreation Area. The sponsor has been working with the State Department of Parks and Recreation on development of the portion of the State Recreation Area across from the site on Harney Way with development of the project (see Chapter VI. Mitigation Measures, p. 165).

PLANS AND POLICIES

San Francisco Comprehensive Plan

The project would comply with the South Bayshore Plan of the Comprehensive Plan, except for proposed residential uses. The project would require a revision to the South Bayshore Plan to allow development of up to 600 housing units. As part of the approval process for the 1978 Development Plan, the City Planning Commission amended the South Bayshore Plan by deleting references to development of the site as 700 market-rate housing units and open space and adding a commercial-use designation of the site (Resolution 7543, August 12, 1976). The Commission also amended the Recreation and Open Space Element of the Comprehensive Plan to omit proposed public open space and park development of the site, and the Transportation Element to delete designation of Harney Way as a Recreation Street (Resolution No. 7543, August 12, 1976). The project would conform to these amended Elements.

General Objective I for conservation, of the Environmental Protection Element, states: "Achieve a proper balance among the conservation, utilization, and development of San Francisco's natural resources." The project would respond to this objective by conserving 26 acres as hillside open space.

Land Policy 1 of the Conservation Plan of the Environmental Protection Element states: "Preserve and add to public open space in accordance with the objectives and policies of the Recreation and Open Space Plan." The project would preserve a portion of the project area as open space; however, it would not be publicly-owned and the project would preclude acquisition of the site for public open space.

The proposed project would address Objective 1, Policy 2 of the San Francisco Comprehensive Plan, Residence Element (April, 1983): "Facilitate the conversion of underused industrial and commercial areas to residential use."/1/

The project would address Objective 3, Policy 1 of the Commerce and Industry Element, which is "to promote the attraction, retention and expansion of commercial . . . firms which provide employment opportunities for unskilled and semi-skilled workers." The project would help to retain and attract businesses that have considered suburban locations with lower rents. Many of the office businesses that would be attracted to the Executive Park site would be service-oriented and would provide employment opportunities for clerical and semi-skilled workers; however, proposed office uses would provide few employment opportunities for blue-collar or unskilled workers. The proposed hotel and retail/restaurant uses and maintenance operations would provide entry-level job opportunities for semi-skilled and unskilled workers. (See V. K., pp. 140-142 for a discussion of permanent employment opportunities that would be created by the project.)

The proposed project would not be fully responsive to Objective 10, Policy 1 of the Commerce and Industry Element, "...the City should encourage additional visitor oriented facilities to locate in those areas where visitor attractions and business and convention facilities are at the present time primarily concentrated." Although there is currently no established tourist use in the area, the project could provide a tourist base in proximity to the Cow Palace, San Francisco International Airport, Candlestick Park Stadium, and existing and proposed shoreline open space. However, the hotel uses at the site would not necessarily attract tourist-oriented facilities, as the hotel is expected to attract primarily overnight business travelers associated with on-site office and meeting space rather than vacation tourists.

Objective 2, Policy 1 of the Recreation and Open Space Element states: "Require all new development within the shoreline zone to conform with shoreline land use provisions, to

incorporate open space, to improve access to the water, and to meet urban design policies." The project's conformity with these four components of the policy would be as follows:

1. The project would comply partially with relevant land use plans involving the shoreline. It would comply with the South Bayshore Plan of the Comprehensive Plan, except for proposed residential uses, and would not affect uses proposed in the Brisbane Waterfront Plan. The project would not be responsive to the San Francisco Bay Conservation and Development Commission's recommendation for development of the area as a park.
2. The project would incorporate 26 acres of open space.
3. The project would not affect access to the water.
4. The project incorporates design changes made in response to San Francisco Department of City Planning requests, including changing in building massing, site plan layout, and design characteristics. However, the Urban Design Element recommends height limits of from 41 to 88 feet while the project incorporates heights of 40 to 200 feet.

Other Applicable Plans

The project would not affect uses proposed in the Brisbane Waterfront Plan which include a linear park along the shoreline with a view restaurant at the Beatty Ave. / Harney Way freeway ramps./2/

The project would not be responsive to the San Francisco Bay Conservation and Development Commission's (BCDC) recommendation for development of the project area as part of a shoreline park./3/ The proposed development plan would preclude for the life of the project the use of the built-up portions of the site as open space.

ZONING

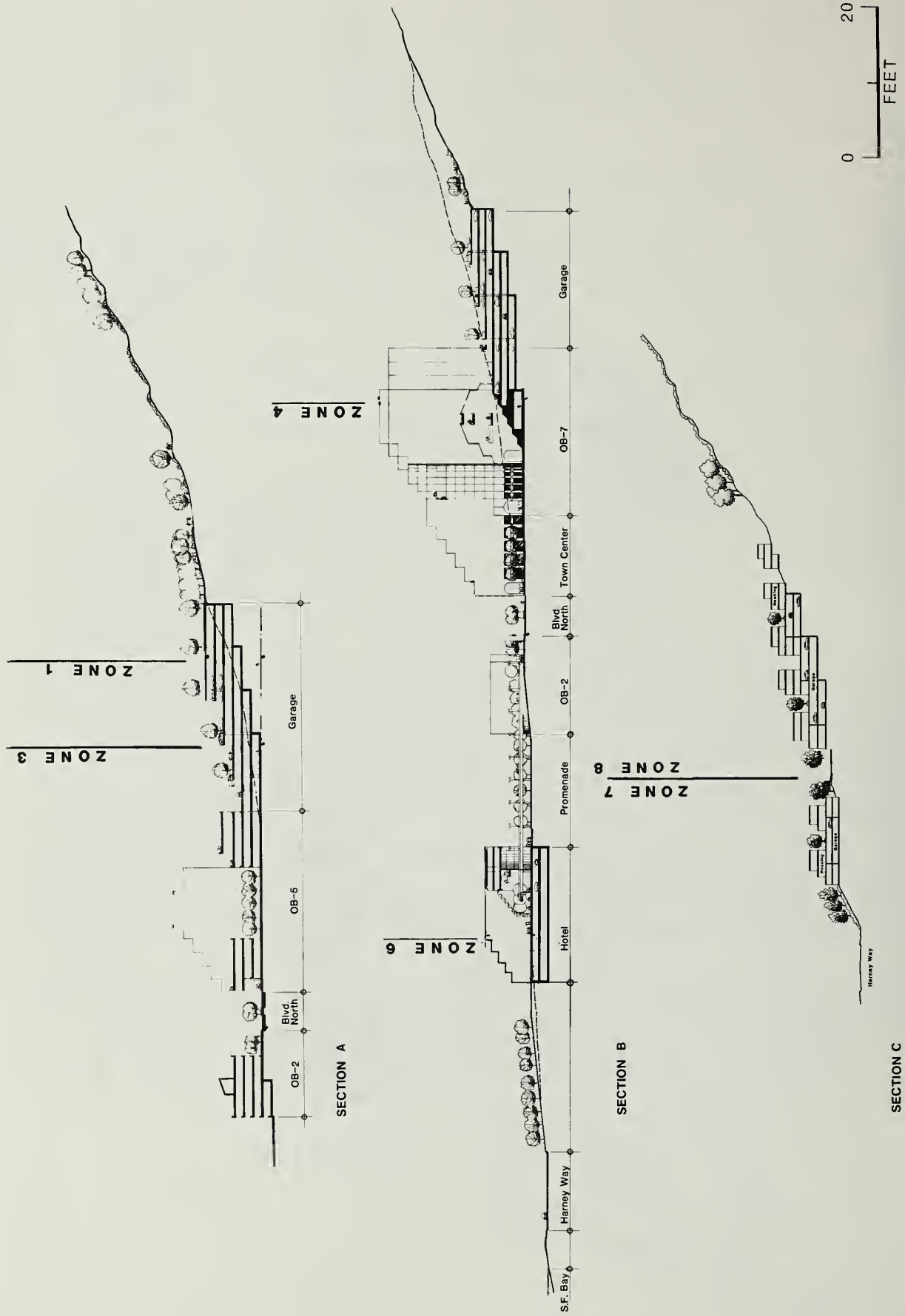
The basic FAR permitted in the C-2 district by Section 124 of the City Planning Code is 3.6:1, allowing development of about 9.4 million gross sq. ft. of floor area within the 60-acre project area./4/ Gross floor area of the proposed project would be about

1.85 million sq. ft. Therefore, the project would develop about 7.5 million fewer sq. ft. of floor area than is allowed for the project area, exclusive of floor area premiums for corner or interior lots. The project would have a basic FAR of 0.71:1 when calculated for the entire 60-acre project area. On the basis of the total 34 acres proposed for development (development on 24 acres of unoccupied land plus development on 10 acres of land previously approved for parking), the project would have an FAR of 1.25:1. The permitted residential density for the project area of one unit per 800 sq. ft. of (lot) site area would allow development of about 3,270 units within the entire 60-acre project area.

A total of about 2.35 million sq. ft. of floor area would be developed at the Executive Park site, including the proposed project (1.85 million sq. ft.), the existing floor area in OB 1 and OB 2 (210,000 sq. ft.), and proposed floor area for OB 3, OB 4 and the Alana Way restaurant (289,000 sq. ft.). The basic FAR for the entire project site would be 0.76:1. The 2.35 million gross sq. ft. of development would be 8.8 million sq. ft. less than the 11.1 million sq. ft. that would be allowed for the entire 71-acre Executive Park site at the applicable FAR of 3.6:1. This FAR would allow less square footage of development than the proposed height and bulk reclassifications (see discussion below).

The sponsor intends to request height and bulk reclassifications from the existing 230-G and 40-X districts for the project area. Proposed height and bulk districts for office/retail structures would be 100-G, 140-H, 165-I, and 200-I. The proposed height reclassification for the parking structure would be 80-X. Residential buildings would be located in proposed 60-X and 80-X and existing 40-X height and bulk districts (see Figures 12A and 12B, pp. 80-81). The height district for the hotel site would be 80-X. In each of the G, H, and I bulk districts, the maximum bulk length and diagonal dimensions above 80 ft. are 170 ft. and 200 ft., respectively. In an X district, no bulk limits apply.

The intended height and bulk reclassification proposal would, in effect, increase the buildout potential for the site over the buildout potential under the existing 230-G and 40-X height districts while reducing height limits in some areas.



See Figure 12A for the location of cross sections, and for the height and bulk of each zone.
 SOURCE
 HELLMUTH, OBATA, & KASSABAUM

FIGURE 12B: PROPOSED HEIGHT AND BULK DISTRICTS - SITE SECTIONS

Total parking provided for the Executive Park site would be about 5,270 spaces, including 4,070 spaces for the proposed project and 1,200 spaces for OB 1 - OB 4. The amount of proposed parking would exceed minimum required parking, by about 1,270 spaces (Section 151 of the City Planning Code). This additional parking would be permitted as accessory parking (Section 204.5). Seventeen off-street loading spaces would be provided; a specific loading plan has not been developed for the site. The number and dimensions of the loading spaces would conform to the loading policies outlined in City Planning Commission Resolution No. 9286 and in the June, 1984 Proposed Revisions to the City Planning Code, both of which require more loading facilities than the requirements of the existing 1979 City Planning Code. Refer also to pp. 112-113 for further discussion of parking and off-street loading requirements.

NOTES - Land Use and Zoning

/1/ City and County of San Francisco, April 1983, Residence Element of the Comprehensive Plan.

/2/ City of Brisbane, February 1978, City of Brisbane Waterfront Plan and Environmental Impact Report, adopted August 1978.

/3/ San Francisco Bay Conservation and Development Commission, July 1979, San Francisco Bay Plan.

/4/ The 9.4 million square feet allowable floor area was based on developing the entire 60-acre project area at an FAR of 3.6:1. Publicly dedicated streets should be subtracted from the 60 acres before this calculation is made. This was not done because widths and lengths of streets are not known at this conceptual plan stage; the FAR of the project would still be far below the maximum allowable FAR.

B. VISUAL FEATURES

The project would alter substantially the visual characteristics of the site by grading and new building construction; the proposed amount of grading would be no more than what was previously approved under the 1978 Development Plan (with 1980 and 1981 amendments).

Area 1 (see inset, Figure 2, p. 26 for the project area boundaries) would be the least altered portion of the site; minimal alteration of the existing topography could occur. The portion of Area 1 to be redeveloped for the hotel site would be graded to a uniformly rising topography and would be covered by the hotel/meeting facility and a pedestrian concourse. The 80-ft.-tall hotel/meeting facility would become the dominant visual element of Area 1.

In Area 2 the project area would be visually altered by grading of the lower portions of the hillside and construction of the office/retail and garage structures. In Area 2, the western and central foot of the hillside would be cut back and the proposed buildings would be set into the slope (a maximum total vertical cut of 85 ft.). Construction of the garage structure on the western portion of Area 2 would not disturb topography above approximately the 180 ft. elevation and would not be visible from northerly views, as these views would be blocked by the office/retail structure. In the central portion of Area 2, where the office/retail structures would be constructed, no alteration of topography would occur above the existing 220 ft. elevation; the tallest of these structures (200 ft. in height) would block portions of Bayview Hill views of up to approximately the existing 240 ft. elevation. (See Figure 19, Cross-Section A and B, p. 134). Bayview Hill reaches an elevation of 390 ft. along the northern boundary of the site, and reaches an elevation of 450 ft. at the crest. The exteriors of the office/retail structures would be tiered, and stepped into the hillside, thereby reducing the apparent height and massing of the buildings. However, the overall scale and mass of these structures still would be prominent along the lower portion of the hillside. Existing views of almost the entire central portion of Bayview Hill would be obscured by the proposed buildings in Area 2 (see Figures 4 and 12A, pp. 28 and 80).

Hillside landscaping and a trail system would be installed in Area 2. The trail system would create new public views from the hillside (see Section V.J Ecology, p. 137, for a further discussion of hillside landscaping and the trail system).

As discussed in Section IV. Visual Features, p. 42, the hillside currently appears scarred and unnatural due to previous alterations. Conservation General Policy 3 of the Environmental Protection Element states: "Restore and replenish the supply of natural resources." Proposed landscaping would make the visually prominent hillside area appear more natural and would be responsive to this policy. If enough trees were planted with sufficient density, they would obscure the existing benches in the hillside when mature.

Area 3 would be changed by the grading of the existing bench between the foot of Bayview Hill and Harney Way (see Figure 19, Cross-Section C, Section V.I, Geology, p. 134). A cluster of residential structures, with heights ranging from 40 ft. to 80 ft., would become the dominant element of Area 3. The housing area would be the most

visually dense element of the project area. The taller buildings would be located in the center of the housing cluster to visually define the residential area, and also to maximize southerly and easterly views of the Bay from residences and from the hillside. In Area 3, topography of the hill would not be modified above the existing 120 ft. elevation, and views of the hillside would not be obstructed above approximately the existing 150 ft. elevation.

VIEWS OF THE PROJECT AREA FROM SURROUNDING VICINITY

Figure 13A on p. 85 shows the conceptual scale and massing of the proposed project when viewed from US 101. In views from surrounding and distant locations, the visual appearance of the project area would be altered substantially by the proposed buildings and landscaping. The site would no longer appear as vacant open space; instead, the site would appear to have a variety of clustered buildings of varying shapes and sizes at the foot of Bayview Hill. The 200-ft. office/retail structure in the center of Area 2 especially would be visually prominent as the tallest structure, in the center of the office/retail complex.

Figure 13B on p. 86 shows the conceptual scale and massing of the project from the Candlestick Point State Recreation Area. The visual appearance of the project area as seen from the Candlestick Point State Recreation Area would also be altered substantially by the proposed project. The southeastern portion of Bayview Hill and the area south of Bayview Hill would appear to have a variety of clustered buildings, rather than the open space which currently exists. The hotel, the cluster of the taller office buildings and the cluster of the housing would be prominent from the Candlestick Point State Recreation Area.

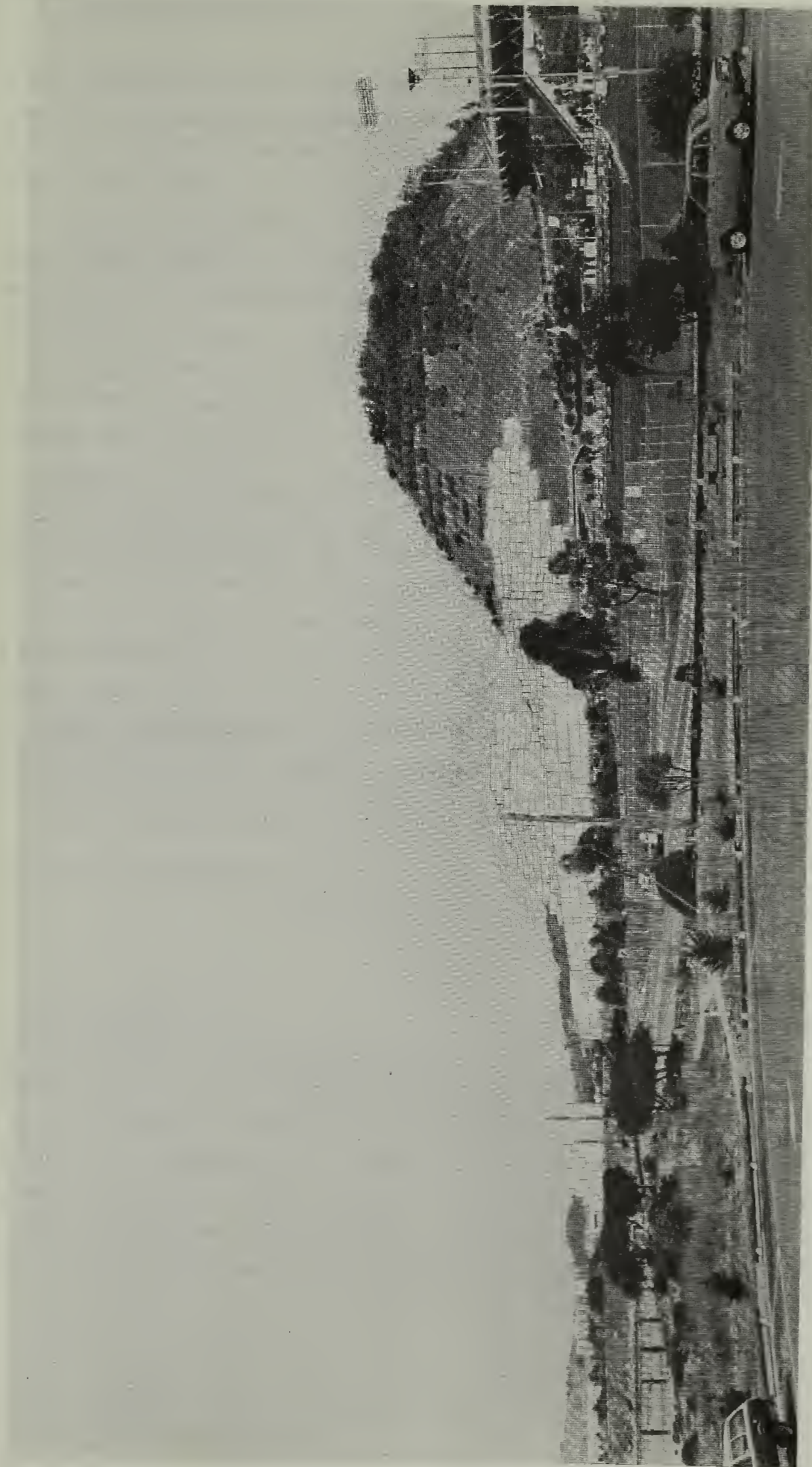
Construction of office/retail structures at the base of the hill would alter views from Little Hollywood of the now vacant Bayview Hill. From Little Hollywood, the roof of the hotel would be visible in Area 1. In Area 2, the upper portions of buildings 100 ft. tall or taller would be visible from Little Hollywood. The project would not block easterly views of the Bay from Little Hollywood, although some foreground views of the Bay would be lost. The project buildings would be visible from the Visitacion Valley neighborhood and the developed areas in the City of Brisbane. From these areas, the open space appearance of the site would be replaced by development.



NOTE: The placement, height, and design of structures are conceptual and subject to ongoing review by the Department of City Planning.

SOURCE
PETER SZASZ & ASSOCIATES; AND
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

FIGURE 13A: VIEW OF PROPOSED DEVELOPMENT PLAN
FROM U.S. 101
(CONCEPTUAL SCALE AND MASSING)



NOTE: The placement, height, and design of structures are conceptual and subject to ongoing review by the department of city planning.

SOURCE: Chun & Ishimaru and Environmental Science Associates Inc.

FIGURE 13B: VIEW OF PROPOSED DEVELOPMENT PLAN FROM THE CANDLESTICK POINT STATE RECREATION AREA (CONCEPTUAL SCALE AND MASSING)

Below elevations varying from 140 ft. to 240 ft., views from the hillside, looking toward the south, would be partially obstructed by project buildings, except for view corridors between buildings and between Executive Park Blvd. East and the Area 3 housing complex. A portion of the hillside trail network would be located along these lower elevations; therefore, views to the south from those trails would be limited. Above the 180-ft. elevation, views from on-site hillside trails, and the crest of Bayview Hill (450-ft. elevation) to the horizon would not be affected. From these locations, the new trails would provide new publicly accessible views to the south, the west and the Bay (east). From Bayview Park, the project would appear below the horizon, with parking lots and the tops of project buildings clearly visible. No public views from Bayview Park to the horizon would be obstructed currently or in the future, should Bayview Park become developed.

The project would appear like a cluster of buildings of varying heights against the hillslope, particularly at night when the lights of the project would be clearly visible. The project would create similar visual effects when viewed from US 101 and the Bay. Most views of the Bay from US 101 and Bayview Hill would be fully preserved, except in Area 3 where the northernmost housing structures would obscure views of the eastern lower slope. The unvegetated hillside portions of the site would be altered visually by implementation of proposed landscaping measures included in the project (see VI. Mitigation Measures, p. 181).

Table 4, p. 88 shows the relationship of the proposed project to applicable Urban Design Principles and Policies of the San Francisco Comprehensive Plan.

C. SHADOWS

The proposed hotel in Area 1 would add shadow to the portion of the Candlestick Point State Recreation Area immediately south of the intersection of Harney Way and Executive Park Boulevard East. (This area is not subject to the provisions of Proposition K.) For the hours of interest, the maximum extent of this shadowing during the course of the year is shown in Figure 14, p. 89, April 21 at 5:50 P.M., PST, one hour before sunset. The equivalent situation would occur on August 21, one hour before sunset. Less

TABLE 4: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE COMPREHENSIVE PLAN AND THE PROPOSED PROJECT

<p>1. <u>Objective 1, Policy 1.</u> "Recognize and protect major views in the City, with particular attention to those of open space and water."</p>	<p>The project would not block views of the Bay from view points on Bayview Hill. Some foreground views of the Bay from directly west of the site in Little Hollywood would be blocked. The project would block about half of the view of Bayview Hill from the south (see Figure 13A, p. 85). See items 2 and 3 below.</p>
<p>2. <u>Objective 1, Principle 2.</u> "Street layouts and building forms which do not emphasize topography reduce the clarity of the City form and image."</p>	<p>The residential structures in the eastern part of the project would be built on the side of Bayview Hill and would appear to follow the slope of the hill. However, the office and hotel buildings in the western part of the project would be built on the relatively level area south of the hill and partially obstruct views from the south.</p>
<p>3. <u>Objective 1, Principle 4.</u> "Where large parks occur at tops of hills, low-rise buildings surrounding them will preserve views from the park and maintain visibility of the park from other areas of the City."</p>	<p>The project would be located at the foot of Bayview Hill, an undeveloped City park. The maximum height of new buildings would be about 200 ft. (measured from the existing grade). Although Bayview Hill would still be distinguishable, it would not remain as a prominent visual feature of the site. Proposed building heights would block some views from Bayview Hill below the existing 180 ft. elevation.</p>
<p>4. <u>Objective 3, Policy 4.</u> "Promote building forms that will respect and improve the integrity of open spaces and other public areas."</p>	<p>The building heights and placements in the project would help preserve views of the top of Bayview Hill. However, the visual density of the project would detract from the open-space character of the side of Bayview Hill (see Figure 13A, p. 85). Landscaping buffers would be installed and designed to visually and functionally separate project structures from Candlestick Point State Recreation Area. Views of the lower portions of Bayview Hill would have an urbanized appearance in comparison to the open space that now exists (see Figure 13B, p. 86). A hillside trail would be installed to link Bayview Hill Park to the Recreation Area (see Figure 4, p. 28).</p>

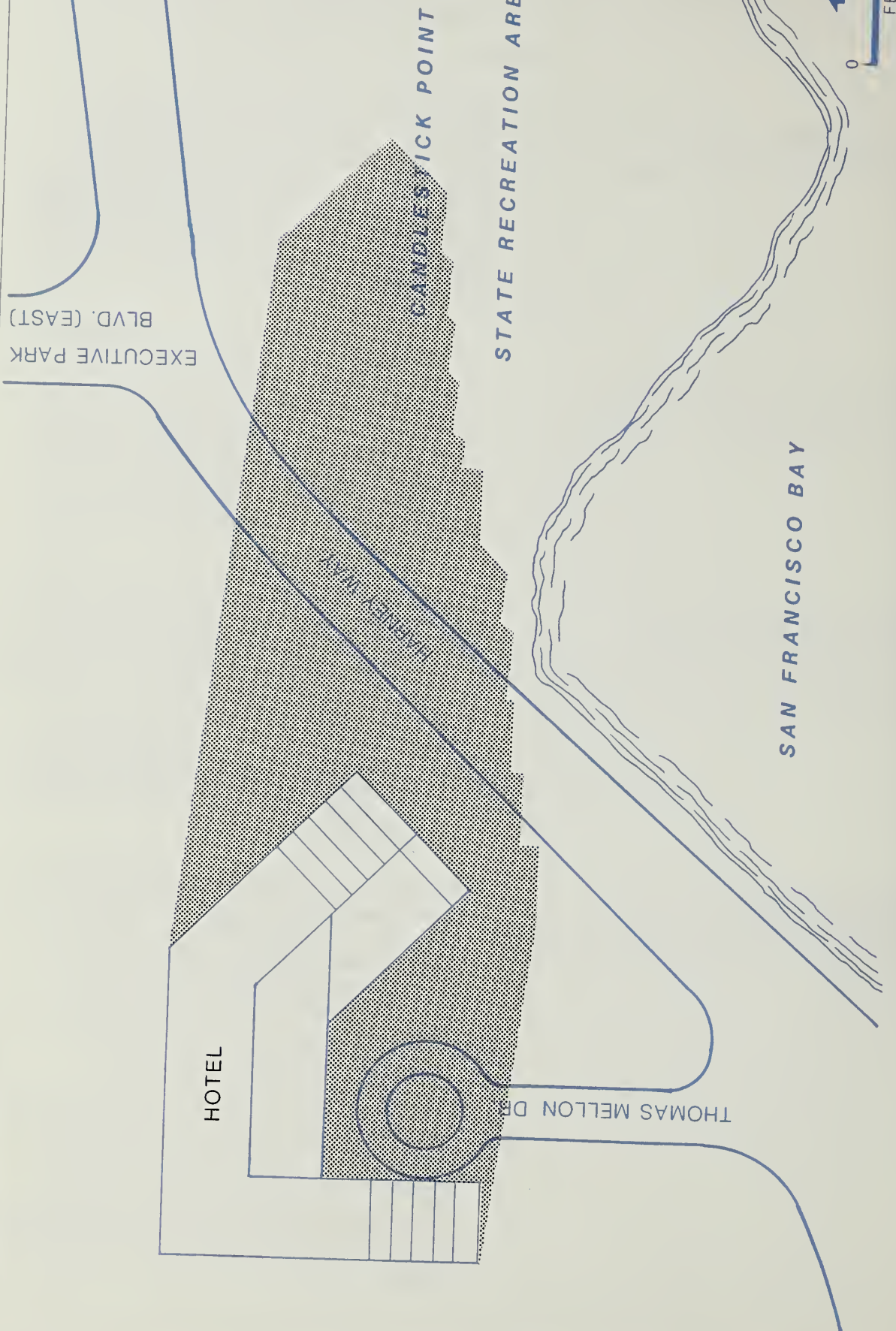


FIGURE 14: MAXIMUM SHADOW ON
CANDLESTICK POINT STATE RECREATION AREA
APRIL 21, 5:50 PM , ONE HOUR BEFORE SUNSET

shadowing on the State Recreation Area would be produced in March (September), May (July) and June. No shadowing would be produced there at any time of the day from October through February.

The easternmost strip of the proposed housing area, bordering the strip of City-owned Bayview Park that extends to Jamestown Ave., is proposed to remain in the 40-X height and bulk district (see Figure 12A, p. 80). Construction in this district is exempted from the provisions of Proposition K. The potential additional shadowing effects of the more-westerly non-exempt (60-X and 80-X) portions of the proposed housing have been studied by means of a series of cross-sections of the proposed housing development. (The set of sections can be examined at the Office of Environmental Review, 450 McAllister St., 5th Floor.) The plane of each cross-section, on a particular day of the year, is the sun plane for the time of one hour before sunset, when maximum new shadowing would be expected. The shadow effect of each housing unit in the cross-section appears as a sloping line from the top of the easterly end of the unit, dropping towards Jamestown Ave.

The sections show that the 40-ft housing units, even set back from the project boundary as they are (see Figures 2 and 12A, pp. 26 and 80) would completely shade the strip of Bayview Park, all the way to Jamestown Ave., at one hour before sunset, so that the taller proposed housing units to their west could not produce additional new shadow on the Park strip at those times of the day. At earlier times of the day, while the shadows from the 40-ft. housing units would be shorter, sometimes not reaching Jamestown Ave., the shadows from the taller housing units would also be correspondingly shorter, so that again they would not add new shadow to the Park strip.

Factors further reducing the apparent shadow effects of the proposed housing units are:

1. The strip of Bayview Park east of the proposed housing does not extend all the way south to Harney Way. The southerly one-third of the strip easterly of the housing area (at the northwest corner of the intersection of Jamestown Ave. and Harney Way) is privately owned.
2. The Park strip slopes down, sometimes steeply, to Jamestown Ave., so that portions of it are already shaded by the higher terrain itself.

The heights of the proposed housing units are specified with respect to the proposed new (finish) grade. For many of the units, the heights with respect to the existing elevation are less than the nominal 40, 60 and 80 ft. This is because the proposed grading consists for the most part of cutting into the hill or retaining the existing elevation, rather than filling. In particular, the proposed 40-ft. housing units, which control the shadows on the Park strip, are never on fill, and are sometimes on cut grade, so that their height above the existing grade is sometimes less than 40 ft. and never more than 40 ft. The proposed 60- and 80- ft. housing units are almost always on cut grades.

The housing and office buildings would not shade the (upward sloping) portions of Bayview Park north of the project site at any time of the year or day.

D. WIND/I/

Average winds, as used in this section, refer to the average summer afternoon winds, which are the peak-period annual wind speeds in San Francisco. The analysis is based on a wind-tunnel study of the project. See Appendix C, p. A-22 for a figure which shows the locations of wind tunnel test measurements.

WEST WIND

The proposed development would substantially decrease winds in the northern and eastern portions of the site. Average summer afternoon winds in pedestrian walkways and entrances to the office buildings in Area 2 would be reduced from approximately 15 mph to about five mph. The average wind speed at the Town Center Plaza would decrease from about 20 mph to about 12 mph. Average winds in the housing complex in Area 3 would be about nine mph, less than half the existing average reading. Average winds in the hillside trails area would be reduced from about 15 mph to about five mph. Wind speeds at the parking structure in Area 2 would probably exceed 11 miles per hour, which would begin to annoy pedestrians. Winds would effectively decrease by about 17% in the eastern portion of the Little Hollywood residential area west of Highway 101. The presence of the 80 ft. tall hotel would probably reduce wind speeds on the Candlestick

Point Recreation Area by a few miles per hour. Winds would not change substantially in the existing Executive Park complex (OB 1 and OB 2), within Candlestick Park Stadium, or in the Bayview Hill Park area.

NORTHWEST WIND

The proposed project would substantially decrease average winds in the northern and eastern portions of the site. Pedestrian walkways and entrances to the office/retail buildings in Area 2 would have average summer afternoon winds of about four mph, with one measurement (just east of OB 4) of zero mph; this area currently experiences 17 mph winds. Average wind speeds in the eastern housing complex would be seven mph, compared to the existing 15 mph. South of and between OB 1, OB 2 and OB 3, winds would decrease slightly, from about 12 mph to about nine mph. Wind speeds would decrease slightly at the western edge of the Candlestick Point State Recreation Area. Upwardly swirling winds would be formed in the open areas between the office/retail structures on the northwest corner of the site, and in the Town Center Plaza. Changes in winds and wind directions in Bayview Park would be minimal.

SOUTHWEST WIND

The proposed development would substantially decrease average wind speeds in the northern and eastern portions of the site, except that the Town Center plaza would experience a slight increase in summer afternoon wind speeds. However, wind speeds would probably be below 12 to 16 mph. With 16 mph winds, pedestrians would experience unpleasant blowing of hair and dust, and some flapping of clothes. At those speeds, apparent temperatures at 50°F would be reduced to about 36°F (wind chill). Reductions would be less at higher temperatures. Otherwise, pedestrian walkways and office and retail entrances would have average winds in the range of three to 12 mph. Winds would decrease in the Area 3 housing complex from the present average of about 16 mph to below eight mph. Winds in this eastern portion of the site, however, would be gusty. Winds at Bayview Hill Park would increase from 17 to 21 mph, but would decrease slightly along the south flank of Bayview Hill just north of the site. The development would decrease average winds in Candlestick Park Stadium, from about nine mph to about seven mph. The project would have no impact on existing winds around OB 1, OB 2 and OB 3, in the Little Hollywood neighborhood, or in the Candlestick Point State Recreation Area.

NOTE - Wind

/1/ This section is based on a study entitled "Wind-Tunnel Studies of the Executive Park," December, 1982, by Dr. Bruce White, for Environmental Science Associates, Inc. All of the text of that study, except for a description of the wind tunnel facility, calculation sheets and wind-flow diagrams, has been fully incorporated into the setting, impact and alternatives discussion of this EIR. This report has been updated by a letter report (Dr. Bruce White, June 25, 1984) that takes recent project design changes and new wind-modeling techniques into account. This updating has also been incorporated into the analysis. The conversion of wind speed ratios to average wind speeds was conducted by Environmental Science Associates using average summer afternoon free-stream wind speeds derived by Dr. White. Copies of both the 1982 study and 1984 letter report are on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor. Dr. White is Associate Professor of Mechanical Engineering at the University of California at Davis. His involvement with this project was independent of the university. See also notes /5,6,7/ on pp. 50-51.

E. TRANSPORTATION, CIRCULATION AND PARKING**CONSTRUCTION TRAFFIC**

Transportation impacts from construction activities are caused by: increased local truck traffic either hauling excavation materials away from the site or delivering construction materials to it; increased traffic from construction workers driving to and from the site; and construction workers parking in the site vicinity. For each of the six phases of project construction (see Table 1, p. 25) there would be six stages of construction activity (site clearance, excavation, foundation, structure, exterior finishing, and interior finishing)./1/ During each stage of construction activity the number of workers on-site would vary as would the number of daily truck trips. The stages of construction activity, the number of weeks of total construction during each stage, and the average number of truck trips per day during each stage are shown in Table 5, p. 94. The total truck travel over the ten-year construction period would be about 50,900 truck trips.

Site excavation during each Phase would account for the largest proportion of total truck trips during the ten-year construction period. About eight percent of the excavated material (see p. 132) would be emplaced on-site while the rest of the excavated material would be hauled to Candlestick Point State Recreation Area (adjacent to the site), the Southern Pacific Baylands development areas in Brisbane, or other disposal sites farther south of the project site on the Peninsula. Candlestick Point State Recreation Area would be accessible via the project street system and Harney Way. Trucks hauling to

TABLE 5: CONSTRUCTION ACTIVITY STAGE FOR EACH BUILDING
CONSTRUCTED

<u>Construction Activity Stage</u>	<u>Weeks of Construction Time/a/</u>	<u>Average Daily Truck Round Trips</u>
Site Clearance	4.5-6.5	10
Excavation	14	25
Foundation	4-6	10
Structure	15-21	10
Exterior Finishing	11-16.5	10
Interior Finishing	11-16.5	5

/a/ The number of weeks of construction time would vary for each of the six phases of project construction (see Table 1, p. 25, for phasing.)

SOURCE: Williams & Burrows Inc., General Contractors

the Baylands areas in Brisbane would be expected to use Alana Way. (Access to the Baylands areas is available at the intersection of Alana Way and Beatty Ave.) Otherwise trucks would probably use Alana Way, Beatty Ave. and Tunnel Ave. south of Beatty Ave. If a disposal site farther south on the Peninsula is used, trucks would use US 101.

Shortly before the start of construction, the project contractor and the Department of Public Works would make the determination of haul truck routes in order to consider traffic conditions occurring at the time of project construction. Factors considered in determining an appropriate route include concurrent construction activities along potential routes, streets known to be hazardous, street engineering specifications, intersection geometrics, and sensitive land uses. The contractor would meet with the Department of Public Works to determine a route that would minimize the impacts of construction truck traffic. Blanken Ave. has a truck restriction in effect and would not be used as a haul route for project construction.

Construction of different phases of the project could overlap. During the periods of overlap, construction impacts would be greater than during the periods when only one phase (building) would be constructed. Individual phases of project construction would require between 13 and 18 months to complete./2/ The proposed construction schedule indicates that for two out of the six phases, site clearance would overlap with interior finish work. Interior finishing generates fewer truck trips than site clearance activities (see Table 5, p. 94). Therefore, concurrent interior finish work would not increase substantially the effect of truck traffic caused by excavation or site clearance.

The impact of construction traffic on the local street system would vary as the project phases are completed. The effects from individual phases would not differ substantially among Phases One through Six, as similar amounts of space would be constructed during each Phase.

There would be relatively few people on-site when Phase One construction begins; consequently, relatively few people would be exposed to the most substantial effects of excavation haul traffic. During each of the following phases (Phases Two to Six) of construction, portions of the office, retail and residential uses of the project would be completed and most likely occupied. Consequently, construction traffic would affect an increasingly greater number of people during latter phases of development, especially in the residential portion of the project, where in Phases Three through Five, excavation and construction would occur adjacent to completed residential units.

The impact of construction truck traffic would be a slight lessening of the capacities of access streets and haul routes because of the slower movements and large turning radii of the trucks. Truck travel on US 101 would impede traffic during peak periods (both morning and evening). During off-peak periods (i.e. 9:00 a.m. to 4:00 p.m.), vehicular traffic in the project vicinity would be light and, consequently, truck traffic would have less of an effect on traffic operations during these time periods. During Phases Four through Six of development activity, truck traffic during peak hours could be an impact as the local street system would be operating close to capacity and the freeway would be at capacity during peak hours. Traffic flow under near-capacity and capacity conditions is unstable and subject to momentary stoppage. The effect of construction trucks on traffic flow for near-capacity and capacity conditions would be an increase in the number of and

length of stoppages, which have the potential to cause operations to degrade into jammed conditions. However, there would be an average of nine truck trips per hour for construction during Phases Four to Six (see Table 5, p. 94), which would not have a substantial effect on traffic operations.

TRAVEL DEMAND

Project Demand

For estimation of travel generated by the land uses proposed for the project, a trip generation/distribution/assignment process was used. Assessment of the project travel demand has been made on the assumption that the project would be fully constructed and occupied (i.e., buildout conditions). The trip generation rates used to estimate travel demand from the project are from standard references./3/

The trip generation rates from standard references assume each of the proposed uses would be constructed on an isolated site, and thus all of the trips would be external to the site; the rates do not account for internal trips within a mixed-use development. It is very likely that some of the trips to the proposed retail and restaurant uses would be generated from on-site office, residential and hotel uses as well as from off-site uses. Therefore, the standard reference rates were adjusted to account for trips among uses within the project site which do not generate any off-site trips. To prevent double counting of trips that would be generated from on-site uses, an estimate of the trips that would be internal to the project was made. For the estimate of internal trips, office travel and residential travel were categorized by purpose (home-to-work, shopping, other) and an analysis of overlapping trip purposes was made. (See Appendix D, p. A-26 for further discussion of trip generation.)

Project land uses at buildout would generate about 24,700 total person trip-ends (pte) per weekday, of which about 3,900 would be internal to the project site. A person trip-end is a one-way trip to or from a particular location by one person either walking, driving or riding. Each trip has two trip-ends. During the p.m. peak hour (which in the site vicinity would occur between 4:00 p.m. and 6:00 p.m.), the project would generate about 3,100 external pte, which would be split between about 700 pte inbound (to the site) and 2,400 pte outbound (away from the site).

A questionnaire was distributed to employees of OB 1 and OB 2 in October 1982. The purpose of the questionnaire was to determine where the employees live, how they get to and from work, where automobile users park, time of work arrival and departure, and transit use. (Appendix D, pp. A-23-A-26) contains a discussion of the survey results and the questionnaire used.) As there are only office uses (no residential) currently on-site, the survey results are applicable only to future trips generated from the proposed office uses. 1980 census data for tracts in the site vicinity were used to approximate the travel behavior of future Executive Park residents./4/

On the basis of the October 1982 survey results and the 1980 Census data, the EIR analysis assumes that approximately 10% of the office work trips (employees traveling to or from the office portion of the project) and 30% of the residential work trips (residents of the project traveling to or from off-site employment) would occur on transit; about 90% of the office work trips and 60% of the residential work trips would be in automobiles; and about one percent of the office work trips and about ten percent of the residential work trips would be made by walking, bicycle or other non-motor-vehicle modes. The external travel to the hotel, retail and restaurant uses was assumed to be primarily by automobiles, with fewer than 1% of these trips occurring on transit. The low transit use by existing employees is a product of the low level of transit service to the project site. As the employment intensity increases on the project site, transit service to the site would be expected to increase and a greater percentage of project residents and employees would be expected to use transit (i.e. shift from driving autos to riding transit). Thus, projecting the existing low level of transit use unchanged into the future could be construed as a "worst case" analysis for automobile traffic generation.

The project under buildout conditions would generate about 15,800 vehicle trip-ends (vte) per day, of which about 2,450 (16% of total vte) would occur during the p.m. peak hour (an hour between 4:00 p.m. and 6:00 p.m.). A vehicle trip-end is a one-way trip to or from the site by an automobile or truck. Assignment of the vehicular traffic to the street and freeway system was made based upon the October 1982 survey results, the census data and estimates of the market area for the hotel, retail and restaurant uses.

Cumulative Development

Three levels of cumulative development have been analyzed: the approved but not-yet-constructed development on the project site (OB3 and OB4); development proposed in Brisbane by Southern Pacific Development Company that would use the local street system in the project vicinity; and development elsewhere in the region that would add traffic to the US 101 freeway in the project area.

On-Site. Two office buildings (OB 3 and OB 4) and a restaurant (immediately south of Alana Way) are approved for the area south of Executive Park Blvd. North. On-site cumulative development would generate about 4,500 weekday person trip-ends; peak hour generation would be about 830 pte. The on-site cumulative development would generate about 3,600 vehicle trip-ends per day (about 670 peak-hour vte). The on-site cumulative development would affect the same portions of the local street system and the freeway system as would the project.

Local. Southwest of the site (across the freeway) in Brisbane, the Southern Pacific Development Company proposes to develop a light-industrial research and development park. This development would affect both local street operation and freeway conditions near the project area. The proposed Southern Pacific project in Brisbane would generate about 42,000 vte per weekday (about 5,900 peak-hour vte).^{/5/} Because the Brisbane project would have access to freeway ramps at Sierra Point (about three miles south of the project), about 25% of the trips from the development in Brisbane (10,800 vte daily; 1,500 vte peak hour) would use the freeway and local streets in the project vicinity.

Regional. Projections of future traffic volumes in the year 2000 on US 101 in the vicinity of the Harney Way interchange have been taken from the Environmental Impact Report for the Downtown Plan (EE81.3, San Francisco Department of City Planning, certified October 18, 1984).

The travel data presented in the Downtown Plan EIR transportation sections (and in this report) are projections of total demand on the transportation system serving San Francisco. The Downtown Plan EIR transportation analysis assumes that regional auto use will continue to change over time in response to increasing levels of congestion on the bridges and freeways serving the City. The analysis projects a shift from commuting by single-occupant auto use (drive alone) to ridesharing (carpool, vanpool) and to transit use. The assumptions of continuing shift from auto to transit and

ridesharing, most apparent in the year 2000 modal splits, are made on the basis of long-term trends in transit use in the San Francisco commute corridors. Because of the use of employment forecasts in the travel demand modeling process, the transportation projections of the Downtown Plan EIR and this report for the year 2000 are independent of lists of cumulative development./6/

TRANSIT

Because of the small amount of floor area currently occupied at the site, transit service to the site is provided by only one Muni route, the 56-Rutland. Transit service to and from downtown San Francisco is provided by Muni on Bayshore Blvd. about one mile west of the site. The 56-Rutland provides feeder services to these downtown routes. Most of the Muni routes to and from downtown provide more capacity (more frequent operation) in the peak downtown commute direction (into the downtown in the morning, out in the evening) than at other times. This is the reverse of the need for work trips to and from the project site. SamTrans routes, which operate on the freeway and on Bayshore Blvd., do not have any stops in the project vicinity. The Bayshore CalTrain (SP) station is located on Tunnel Ave. at Scavenger Rd., about one-half mile west of the site. Muni currently provides no service between the CalTrain station and the site. The 56-Rutland Muni route, which serves the project site, operates three buses per hour between 6:30 a.m. and 11:30 p.m./7/ No transit service is provided to the site between 11:30 p.m. and 6:30 a.m., which would have the effect of minimizing the amount of early morning transit use to and from the site.

No definite improvement programs have been implemented by public agencies to increase transit service to the site./8/ Until the level of activity at the project site increases substantially, transit improvement programs will, most likely, not be instituted. Project transit travel percentages to and from the site have been assumed to be the same as the existing transit use on the site (as determined by the employee survey) and in the project vicinity (as determined from census data) - about 10% of the office work travel and about 30% of the residential work travel.

On-site cumulative development would thus generate about 270 person trip-ends (pte) on Muni per day (about 50 peak-hour pte). The project would generate about 1,760 pte on Muni per day. During the p.m. peak hour, the project would generate about

270 pte on Muni, of which 90 would be inbound (toward the site) and 180 would be outbound. The on-site cumulative and project transit travel could be assumed to use all of the remaining peak-hour capacity (at a load factor of 1.25) on the 56-Rutland route./9/

Primarily because of the additional development proposed under the 1983 Executive Park Development Plan Amendment (which had the same square footage as the 1984 Development Plan Amendment analyzed in this report), Muni is studying a plan to re-route service in the project area by switching the route designations for the 29-Sunset and 56-Rutland lines (see Figure 9, p. 53)./10/ The 29-Sunset serves the residential areas northwest of Candlestick Park Stadium. The re-route would provide service on the 29-Sunset between the site, the Bayshore CalTrain station and the Balboa Park BART station. The re-route as proposed would require a street extension near Sunnydale Ave. and a new crossing of the SP-mainline tracks that would be restricted to Muni use only. After the re-route, the site would have direct Muni service to both CalTrain and BART and to transfer points with downtown routes. The 56-Rutland would be re-routed from portions of the existing routing to provide feeder service between Bayview Hunters Point and the Bayshore CalTrain station. After the re-routing, the 56-Rutland would not provide service to Executive Park or to the Little Hollywood neighborhood. No change in route capacity on the 29-Sunset is proposed as part of the plan. However, transit capacity would increase at the project site as the 29 operates more frequently (five buses per hour) than does the 56 (three buses per hour). If no further development were proposed for the site (beyond OB 4), Muni would not implement the reroute as it believes that there would not be sufficient demand from the existing and approved development to warrant the effort./11/ Any rerouting proposal that would serve the project would require public hearings and approval by the San Francisco Public Utilities Commission (PUC).

The October 1982 employee questionnaire showed that about three percent of the respondents used A-C Transit or Golden Gate Transit bus service from their homes to downtown San Francisco. Questionnaire data indicated that one firm located at the site provides shuttle service for its employees between the Executive Park site and downtown. Subsequent inquiries showed that all of the Executive Park employees riding AC Transit and Golden Gate Transit used the shuttle to and from downtown. Without a shuttle service, travel time between the closest downtown AC Transit and Golden Gate Transit stops and the site would be too lengthy for such commutes. Because there is no guarantee of a shuttle service in the future, no project use of Golden Gate Transit or AC

Transit was assumed. Similarly, no use of SamTrans and CalTrain was assumed, as the walking distance (at least one-half mile) to the site from the nearest stops would inhibit use of these two systems by project commuters and residents. If convenient service to the site were available from SamTrans or CalTrain, about 20% of those employees currently driving to the site indicated that they would use the transit service.

PEDESTRIANS

The project area is isolated by the freeway and topographic constraints. Minimal pedestrian travel (less than 1% of the total) has been assumed to occur outside of the project area. However, pedestrian travel has been assumed to occur among land uses on-site. The development plan indicates that primary pedestrian activity is proposed along the northern portion of Thomas Mellon Dr., along Executive Park Blvd. North, and in the Town Center plaza (see Figure 2, p. 26). This plaza is expected to attract pedestrian travel from office and retail uses which would be greatest during noon hours, as well as travel from the hotel. Pedestrian travel during commute hours would be expected to be to and from parking facilities and transit stops. Pedestrian travel on-site outside of commute periods would be from office and residential uses to the retail/restaurant uses on-site.

TRAFFIC

Project Traffic

The project would generate about 15,800 vehicle trip-ends (vte) per day, of which about 2,400 would occur during the p.m. peak hour. The October 1982 employee survey indicated that 63% of the automobile traffic has origins or destinations either north or south on US 101 and that 37% of the traffic uses local streets for San Francisco or northern San Mateo County origins or destinations.

Local Streets and Intersections

The site has been designed to provide vehicular circulation (see Figure 2, p. 26) on Executive Park Blvds. West and East, and Alana Way. Executive Park Blvd. North and Thomas Mellon Drive between the hotel and the Town Center would provide pedestrian and transit access. An extension of Executive Park Blvd. West between Alana Way and Harney Way would facilitate traffic circulation for the project and would improve access to the northbound freeway ramps for the project and Little Hollywood.

Streets in the project vicinity would experience increases in volumes as a result of the project, on-site cumulative development at Executive Park, and local cumulative development in Brisbane. Most of the traffic would use Alana Way, Harney Way and Beatty Ave. to travel between the US 101 ramps and the site.

Although the project street system has been designed to minimize effects on Blanken Ave., the connection with Blanken Ave. would be maintained similar to its present condition. Thus, some project traffic would be expected to use Blanken Ave. if Executive Park Blvd. West, Alana Way or Harney Way were to become congested. Most of the intersections on Blanken Ave. are controlled by stop signs (on the Blanken Ave. approaches) to discourage through travel.

The project would generate about 870 peak-hour vte that would be expected to use the local street system (as opposed to the freeway). As much as one-third of this traffic would have origin/destination patterns that could include the use of Blanken Ave. to reach Bayshore Blvd. (the rest would be expected to use Beatty Ave. and Tunnel Ave., or Harney Way and Jamestown Ave. Ext.). Blanken Ave. currently carries a two-way peak-hour volume of 150 vehicles per hour (vph). The project (and on-site cumulative development) could increase the peak-hour volume to about 500 vph on weekdays (substantially less on weekends). This would cause Blanken Ave. to serve as an arterial street connecting neighborhoods, rather than just as a residential collector street.

Functionally, Blanken Ave. can carry two-way volumes of about 2,000 vehicles per peak hour at capacity. On a purely functional basis, Blanken Ave. would operate in Level of Service A conditions both before and after the addition of traffic from the project. However, the increase in vehicle volumes would be noticeable to residents. Resident perception of traffic does not correlate with the functional capacity of a street, as a street can functionally carry more traffic than residents find desirable.

The late Donald Appleyard conducted a study of traffic effects on neighborhood streets (Liveable Streets, Berkeley Press, 1981). The study found that traffic volumes of greater than 300-400 vehicles per hour had the effect of creating a perceived barrier between two sides of a street, thus reducing neighborhood identity. The concept that Appleyard explored was neighborhood perception of traffic. The perception of traffic by neighborhood residents is a subjective judgment made by individuals and varies substantially.^{12/} On the basis of the Appleyard data, Blanken Ave., after traffic

increases from on-site cumulative development and the project, would be in the light to medium volume category of streets. Even so, residents of Blanken Ave. may perceive the peak-hour traffic increase as substantial.

Table 6, p. 104, shows the results of a capacity analysis at key intersections in the project area which would be most affected by project-generated traffic. The street system in the project area has been designed to adequately serve the current low intensity of development in the area east of Tunnel Ave. and south of Little Hollywood. Consequently, it does not have sufficient reserve capacity to adequately serve future traffic from the project and on-site and local cumulative development. As shown in Table 6 under the "without improvements" columns, future traffic increases would overload the existing street system and congest the intersections (LOS F). To provide adequate traffic access at the development intensity proposed for the project and on-site and local cumulative development, street improvements such as signalization of intersections and widening of roadways would have to be implemented as the project vicinity develops. On the assumption that street improvements (see Section VI, Mitigation Measures, pp. 170-177 and Table 16, p. 171) are built over the next 10 to 15 years of project and on-site and local cumulative development, intersection conditions would be expected to be approximated by the values shown under the "with improvements" heading in Table 6, p. 104. Under the mitigated condition, the three intersections would be expected to operate at Level of Service D or better during the p.m. peak hour. These improvements are not currently funded or programmed either by public agencies or the project sponsor. Without these improvements, existing, on-site, local cumulative and project traffic combined would, as noted above, cause conditions at the intersections shown in Table 6, p. 104 to deteriorate to Level of Service F.

The intersection analysis has been made independently of the freeway analysis. For the intersections to operate as shown in Table 6, p. 104, all of the p.m. peak hour traffic generated by the project would have to travel through the intersections in a single hour which, in some cases, would depend on the ability of the freeway to absorb all of the traffic increases from the Harney Way and Alana Way on-ramps in the peak hour. As the freeway is currently near capacity southbound in the p.m. peak hour (and northbound in the a.m. peak hour), it would not be possible to add all of the peak-hour project traffic onto the freeway in the peak hour in the peak direction and maintain traffic flow on the freeway (see discussion on pp. 105-111). It is likely, therefore, that while all of the

TABLE 6: EXISTING AND FUTURE VOLUME-TO-CAPACITY (V/C) RATIOS AT INTERSECTIONS IN THE PROJECT VICINITY (P.M. PEAK HOUR, except as noted)

Intersection	Existing + On-site and Local Cumulative/c/ Without Improvements				Existing + On-site and Local Cumulative + Project Without Improvements With Improvements/d/					
	Existing (1983)/a/									
	V/C	LOS/b/	V/C	LOS	V/C	LOS	p.m. peak V/C	LOS	a.m. peak V/C	LOS
Alana Way / Beatty Ave. (SB 101 ramps)	0.30	A	0.82	D	1.64	F	0.82	D	0.64	B
Harney Way / Alana Way / Thomas Mellon Dr. (NB 101 ramps)	0.30	A	0.58	A	1.46	F	0.53	A	0.84	D
Alana Way / Executive Park Blvd. West	0.23	A	0.43	A	1.09	F	0.85	D	0.80	C

/a/ Based upon counts made October 4, 5, 6 and 12, 1982 by Environmental Science Associates.

/b/ LOS = Level of Service (see Table D-3 Appendix D, p. A-29).

/c/ Cumulative development affecting the intersections noted above includes: on-site development (OB 3, OB 4, and a restaurant south of Alana Way); and local development (the Southern Pacific light-industrial research and development) in Brisbane.

/d/ See Mitigation, pp. 170-171 for intersection improvements. These improvements are not currently funded or programmed either by public agencies or the project sponsor.

SOURCE: Environmental Science Associates, Inc.

project and on-site and local cumulative traffic increases would occur during the peak period, not all of the traffic assumed to occur in the peak hour would actually occur in that hour (which means that the peak-hourly volumes used in the intersection analysis would be greater than may actually occur in a single hour). However, the intersection analysis has been conducted assuming all of the peak-hour project and on-site and local cumulative traffic would occur in a single peak hour (i.e., "worst case" analysis). Freeway conditions are evaluated in the following section. Although traffic conditions on the

street and freeway system in the project vicinity have been determined to be more congested during the p.m. peak than during the a.m. peak, the two right-hand columns in Table 6, p. 104 show the a.m. peak-hour intersection operating conditions for the "with improvements" condition. Without improvements, the a.m. conditions would be approximately equivalent to p.m. peak conditions without improvements.

Freeway

The Bayshore Freeway (US 101) is a major link in the regional transportation system that provides north-south access to the Bay side of San Mateo County. Figure 15A, p. 106, shows the locations of areas of existing peak-hour freeway congestion. A major congestion point for southbound p.m. traffic is located upstream (north) of the project site, at the I-280 interchange. The effect of the congestion point is to meter the flow of traffic on the freeway in the project area (between the interchange with I-280 and Sierra Point in Brisbane). The freeway currently carries about 7,400 vehicles per hour (vph) southbound in the p.m. peak hour just south of the interchange with Harney Way. From analysis of the volumes on a 15-minute basis (the shortest time period for which counts were available), congestion at the interchange with I-280 appears to meter southbound traffic flow at about 7,200 vph. Figure 15B, p. 107, is a schematic representation of two components of traffic flow on US 101 in the project vicinity. Existing volumes are shown in the lightly shaded portion of the Figure. Maximum flow through the congestion point by existing traffic is represented on Figure 15B in the time period between 4:30 p.m. and 4:45 p.m., where the lightly-shaded area reaches the 1,800 vehicles per lane per hour value. As shown in Figure 15A, travel speeds (opposite the project) in the p.m. peak hour southbound on US 101 are greater than 20 mph; CalTrans data show southbound speeds of approximately 50 mph near Harney Way. From the known relationships among speed, traffic flow, and Level of Service presented in the Highway Capacity Manual (Highway Research Board Special Report 67, 1965), travel speeds of 50 mph are consistent with Level of Service D or better conditions. Thus, the capacity of the freeway section south of Harney Way has been assumed to be 8,000 vph (in each direction) rather than the 7,200 vph cited above. That is, the freeway could handle some additional southbound traffic introduced south of the I-280 interchange. Table D-4, Appendix D, p. A-30, describes freeway Level of Service.

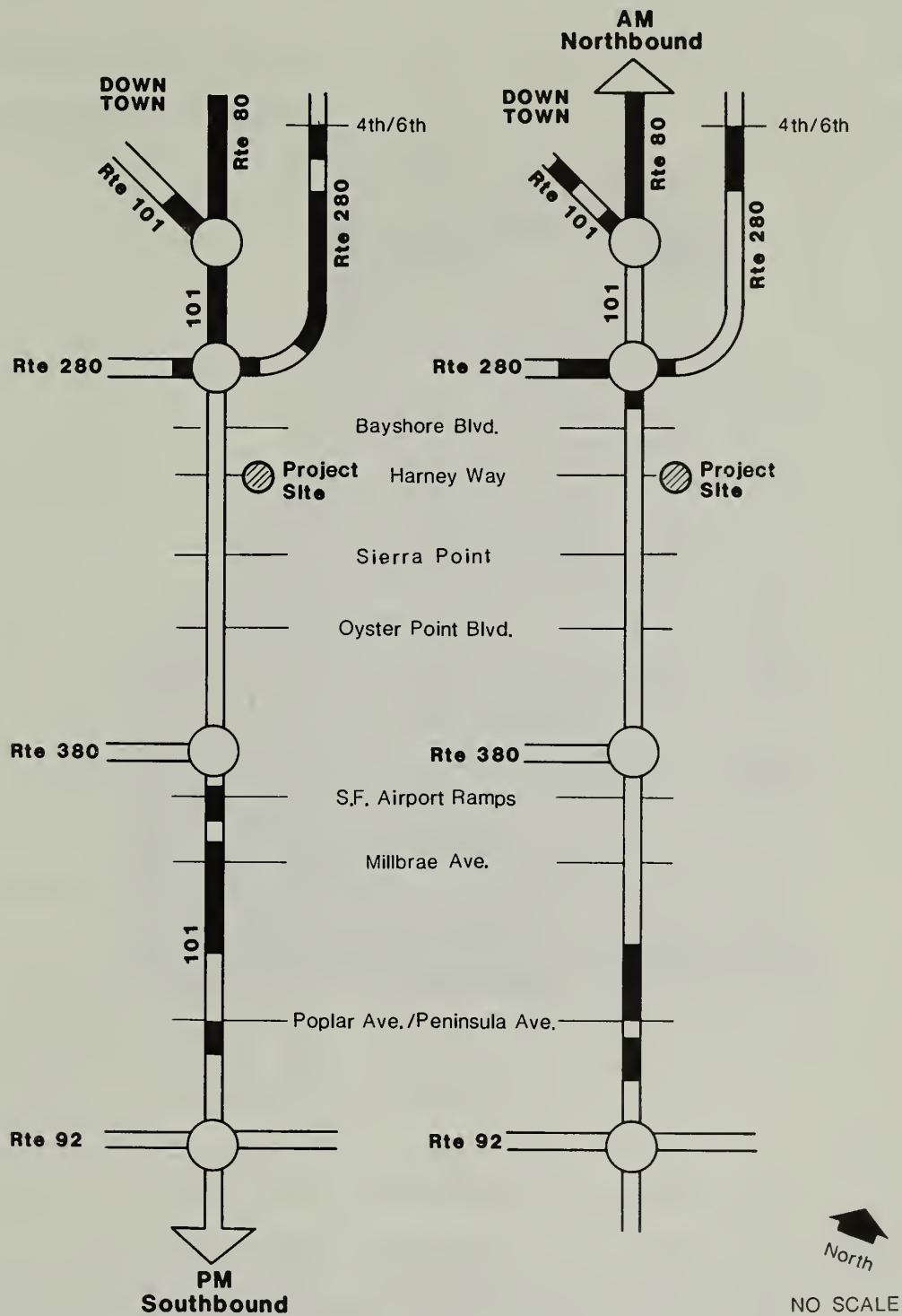
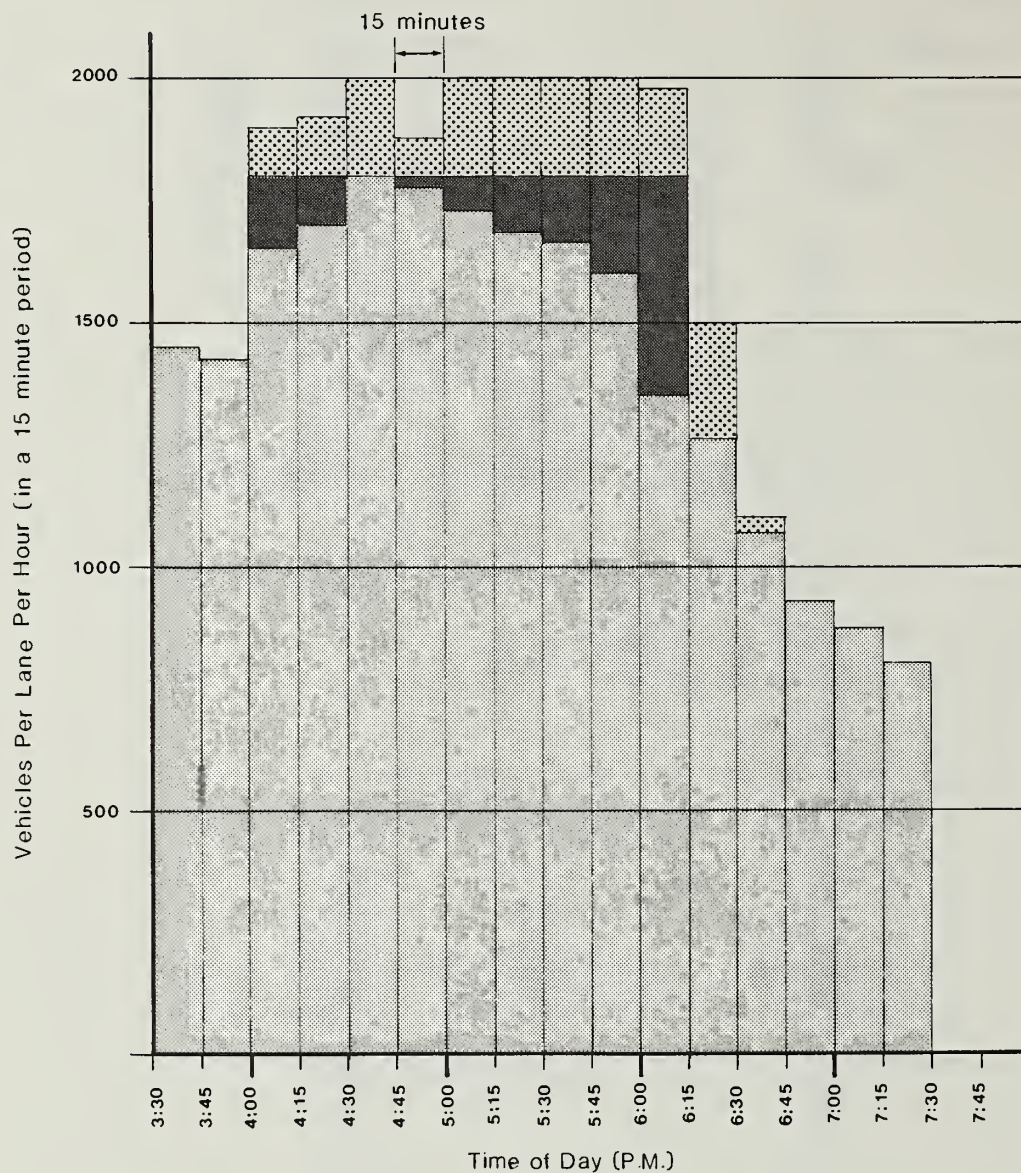


FIGURE 15 A: EXISTING AREAS OF
PEAK HOUR TRAFFIC
CONGESTION ON U.S. 101
(BAYSHORE FREEWAY)

SOURCE

DKS ASSOCIATES AND ENVIRONMENTAL SCIENCE ASSOCIATES, INC.
Based on California Department of Transportation District 04 Speed Profile Data.



LEGEND

- Amount of lane capacity used by existing traffic
- Downtown and Bayshore corridor (Regional) cumulative traffic entering via U.S. 101 from north of the interchange with I-280
- Project traffic, on site (OB 3 and OB 4) and local (Brisbane) cumulative traffic, and regional cumulative traffic entering U.S. 101 south of the interchange with I-280

SOURCE
 ENVIRONMENTAL SCIENCE ASSOCIATES, INC.
 BASED ON DATA FROM THE CALIFORNIA DEPARTMENT
 OF TRANSPORTATION

FIGURE 15B:
 SOUTHBOUND BAYSHORE FREEWAY
 SOUTH OF HARNEY WAY YEAR 2000
 15-MINUTE VEHICLES PER LANE PER HOUR
 (WEEKDAY P.M. PEAK PERIOD)

Freeway operations outside the project vicinity would be influenced by the amount of commercial and residential development that would occur in the Bayshore Freeway Corridor and in downtown San Francisco. The MTC Bayshore Corridor Study/6/ states that "more heavy impact ... could be anticipated between Foster City and San Carlos during the peak periods north and south of Route 92." The Downtown Plan EIR in Section IV.E contains an analysis of peak-hour and peak-period freeway traffic volumes on US 101, I-280, the Bay Bridge (I-80) and the Golden Gate Bridge. The analysis of US 101 has been conducted for a location south of the Harney Way ramps, and thus includes the project traffic with southbound origins/destinations. As noted in the Downtown Plan EIR, the analysis of future traffic volumes on freeways has included the effects of changes in mode (drive alone to ridesharing and transit) for C-3 District travelers. The analysis has also recognized the effect of capacity restraints in the US 101 corridor by using a lower growth rate for non-C-3 travel in the period 1990 to 2000 than was used in the period 1984 to 1990. As noted on p. IV.E.13 of the Downtown Plan EIR, the southbound US 101 volumes "have been analyzed at the County line because of the abundance of surface routes that allow traffic from the downtown to bypass the US-101/I-280 interchange. The number of parallel surface routes available to downtown traffic diminishes substantially by the time the freeways cross the County line. The downtown traffic destined for Peninsula locations that has by-passed the interchange has been assumed to have re-entered the freeways between the interchange and the County line."

Thus, freeway operations in the project vicinity may be affected by traffic conditions outside the project vicinity. In the p.m. peak, congestion upstream (north of) the project area on the freeway would meter the freeway traffic flow, as well as increase the amount of traffic entering at the Bayshore Blvd. (Third St.) ramps. Congestion downstream of the project could cause traffic queues on the freeway to back up into the project area and jam conditions on both the freeway and local streets that serve the access ramps.

Travel patterns (time in which travel occurs, choice of route, and mode choice) are not static; rather, they are dynamic with changes occurring as the result of individual travelers' changing time of travel, travel route, or travel mode. Individual travelers are likely to change travel modes, routes and times of travel to minimize travel cost and time. Thus, freeway congestion is a primary cause of changing travel patterns as individual motorists respond to increased congestion by attempting to avoid the most-congested (time-consuming) periods by moving to other routes, changing times of

travel or shifting to other modes. For the above analysis of the project and cumulative development, however, a "worst-case" scenario is followed, whereby the traffic volume data have been estimated on the assumption that the travel patterns of project employees, visitors, and residents would be the same in the future as they are today.

One possible response by project drivers to increased congestion on the freeway in the site vicinity would be for motorists leaving the project to adjust their times of start of travel by from 15 minutes to an hour so that they would enter the freeway during periods when capacity would be available. An alternate reaction to the freeway congestion would be for project motorists to shift to ridesharing or transit use, which would mean a change in the modal split and increased transit ridership over that discussed on pp. 98-101. Also, project motorists could use parallel routes (freeways and surface streets) to avoid the southbound congestion on US 101, which would mean an increase in traffic on the alternate (parallel) routes. Bayshore Blvd. and I-280 are routes parallel to southbound US 101. Thus, accurate prediction of the time periods when project traffic would use the freeway is not possible.

The most likely scenario is a mixture of the three conditions mentioned above. Changes in time of travel (length of peak period), travel mode and route used would occur to create a condition that would allow tolerable conditions overall. Because the future volume projections include existing travel, this process of change would affect existing travelers as well as new motorists. Consequently, existing motorists would be expected to alter their travel patterns in tune with the changing travel from new development. This process would occur gradually over time unless influenced by incentive programs designed to increase use of specific modes (e.g., installing carpool/vanpool lanes on the freeway, subsidizing transit fares for employees) or to alter times of travel (e.g., implementation of flex-time or staggered work hours).

The effect of the project traffic as it enters the freeway southbound at the Alana Way on-ramp would be an increase in the amount of interaction among vehicles on the freeway (and a resultant slowing of travel speeds) caused by project traffic merging into a stream of freely flowing, closely spaced vehicles. Figure 15B, p. 107, shows the effects of future (year 2000) traffic on southbound US 101 immediately south of Harney Way. The effect of traffic traveling on US 101 through the interchange with I-280 would be to extend the

time of the 1,800-vehicles-per-lane-per-hour flow from 15 minutes (in 1984) to 2 hours and 15 minutes. The effect of local cumulative and project traffic, as well as of other cumulative traffic entering US 101 southbound at the Bayshore Blvd. ramps, would be to increase traffic flows to the 2,000 vehicles per lane per hour ceiling (and thus reduce travel speeds in the project vicinity) for about 1 hour and 15 minutes (75 minutes). There are no currently funded programs which would effectively mitigate the increase in congestion on US 101. California Senate Concurrent Resolution No. 74 (adopted May 31, 1984) recognizes the congestion in the San Jose - San Francisco corridor and directs the Metropolitan Transportation Commission to develop a mass transit system plan for the corridor.

In the segment of US 101 southbound between the I-280 interchange and the on-ramp at Alana Way, the effect of the fluctuations in traffic flow caused by project and cumulative traffic merging into the freeway traffic stream would be to increase the potential for Level of Service F conditions to occur. The potential for traffic flow to degrade into Level of Service F conditions would depend on the volume and distribution over time of entering vehicles at the Alana Way ramp (i.e., how closely concentrated a surge of entering traffic may be) and on the character of flow southbound through the I-280 interchange (i.e., how concentrated the peak freeway flows may be). Depending on the amount of Executive Park traffic trying to enter the freeway, at times there may not be sufficient freeway capacity to allow cars to enter. This condition would cause traffic to back up on Alana Way and Beatty Ave., or would cause traffic to divert onto Tunnel Ave. to reach the Sierra Point or Oyster Point on-ramps further to the south. (Both of these ramp sets are accessible via the local street system in Brisbane and South San Francisco.)

Without the information to predict accurately either the quality of flow (i.e., how congested the freeway would be at any given time) on the freeway 20 years in the future, or the departure patterns of future tenants at the project, it is not possible to estimate the frequency of occurrence or the length of time that Level of Service F conditions would be present. South of the project vicinity, project traffic and traffic from developments in Brisbane and South San Francisco would have the effect of expanding northward the area of constrained flow that starts south of the I-380 interchange (San Bruno) in the p.m. peak hour (see Figure 15A, p. 106).

Figure 15B, p. 107, should not be read to imply that all of the local and regional cumulative traffic would add to the existing demand first (in the early years), with the project traffic added last. Rather, the additions would occur in an overlapping manner. It is possible that some of the cumulative additions would occur in later years, after the last of the project office construction. This is one more element of the dynamic nature of traffic estimation into the long-range future.

It is possible that individual travelers (project employees and others), faced with a 75-minute period of freeway congestion, may desire to leave work earlier, thus encouraging companies to implement flex-time. This would tend to lower the peak traffic volumes over some portion of the two-hour peak, and raise volumes before the estimated peak period starts.

During the a.m. peak hour, the project is upstream (south) of the congestion point at the US 101 interchange with I-280 (see the right half of Figure 15A, p. 106); thus, the traffic traveling northbound on US 101 would exit at the project prior to contributing to the congestion at the I-280 interchange. Conversely, traffic to proposed development in downtown and the East Bay and North Bay corridors would extend southward the area of constrained flow that starts at the I-280 interchange.

The effect of the project traffic and cumulative traffic on the congestion point north of Poplar Ave. (San Mateo) during the a.m. peak (see Figure 15A, p. 106) depends on the amount of that traffic present on the US 101 freeway in that area. The employee survey for the Executive Park site shows that about 43% of the employees live on the Peninsula (15% along the I-280 Corridor, 25% along the US 101 Corridor north of Route 92, and 3% along the US 101 Corridor south of Route 92). Only the relatively minor portion (3%) of the employees residing south of Route 92, plus an unknown percentage from the San Mateo / Foster City area and from the central and southern East Bay cities, could be expected to travel on US 101 in the vicinity of Poplar Ave. / Peninsula Ave. Similarly, estimation of the amount of traffic from cumulative development at the Poplar Ave. / Peninsula Ave. congestion point is hampered by a lack of precise information about origin-destination patterns of commuters to future developments.

PARKING

Approximately 4,070 parking spaces would be provided by the proposed development plan amendment. About 5,270 total spaces would be provided for the entire Executive Park site (including existing and approved buildings). The total amount includes the existing 552 at-grade spaces providing parking for OB 1 and OB 2 and another 646 spaces proposed for construction at grade to serve OB 3 and OB 4 (140 of the OB 3 spaces would be replaced in a parking structure during Phase Six as part of the hotel construction and all of the OB 4 parking spaces would be replaced in a parking structure in Phase Two). The remaining 4,070 spaces would be provided in parking structures or in the residential portion of the project, and would serve the uses of the proposed Development Plan Amendment, distributed as follows (see also Table 1, p. 25):

Office/Retail:	2,810
Housing:	900
Hotel/Meeting:	360
Total:	<u>4,070</u>

Total Code-required parking for the site would be about 3,900 parking spaces, of which 2,950 spaces would be required for the proposed development plan amendment (City Planning Code, Section 151). An additional 1,950 spaces could be provided as accessory parking (Section 204.5), for a maximum allowable ceiling of about 5,850 spaces for the Executive Park site./13/

Standard parking demand rates have been used to estimate peak parking demand for the Executive Park site./14/ On the basis of standard rates, the total, (unadjusted) peak parking demand for the site would be about 6,880 spaces, including the existing (OB 1 and OB 2) and approved (OB 3 and OB 4) buildings on-site and proposed new uses. With an adjustment of the total demand for overlapping travel (i.e. trips internal to the site that would not generate parking demand) and for transit use, which is not part of the standard rates, the overall peak parking demand would be about 4,400 spaces. This amount would be accommodated by the spaces provided at the Executive Park site. An additional factor that may reduce the peak parking demand is that the analysis does not consider the different times when peak parking demand occurs for different land uses. For example, office uses have peak daytime parking demands and restaurant and residential uses have peak nighttime parking demands, and thus the total parking demand during any one hour may be less than the sum of the individual peaks by land use. An opportunity could exist for shared parking between retail and other land uses. If shared parking were allowed on

the project site where feasible, the supply could be decreased to meet the actual peak parking demand. Shared parking among different project uses could be allowed with a variance under the City Planning Code.

Because of the dynamic uncertainties (variations in the amount of parking provided during each phase, transit improvement schedules, future automobile use, etc., through the phases of development) involved in the parking analysis, it is not possible to predict accurately the amount of surplus parking demand (if any) that might occur during the course of development of the project. If surplus parking demand were to occur, the overflow might be expected to park on-street in the project vicinity or to park illegally in the on-site parking areas. Under such conditions, some parking demand from the project might use Blanken Ave. However, because of the distance from on-street parking on Blanken Ave. to the project site (about 800 feet, via an underpass of US 101) project parking use of Blanken Ave. would be expected to be limited. If auto travel to the site is less than predicted in the future (as a result of increased ridesharing and transit use), overall parking demand would be diminished.

OFF-STREET FREIGHT LOADING

Although the existing City Planning Code (Department of City Planning, 1979) and the Amendments to the City Planning Code to Implement the Downtown Plan (Department of City Planning, November 1984) would require, for the uses proposed under the development plan amendment, the provision of approximately 6 loading spaces, City Planning Commission Resolution No. 9286 would require that 17 loading spaces be provided as mitigation. Each off-street loading area would have to accommodate, at a minimum, standard single-unit trucks. Because the proposed project is at a development plan (conceptual) level of detail, the precise locations and dimensions of off-street loading spaces have not yet been determined.

IMPACT OF EVENTS AT CANDLESTICK PARK

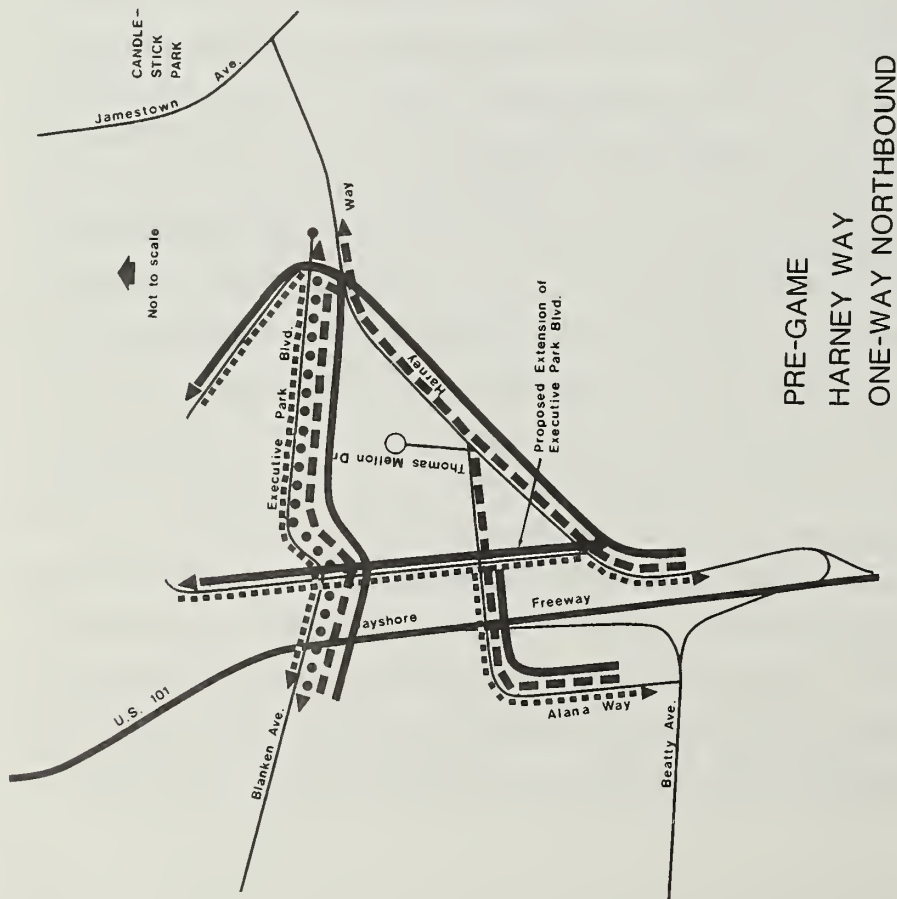
During pre-event and post-event periods for events at Candlestick Park, Harney Way operates as a reversible one-way street. During events at Candlestick Park, access between the Executive Park site and the northbound freeway ramps is disrupted. As part of the proposed development plan amendment, the sponsor would extend Executive Park Blvd. West south of Alana Way to intersect with Harney Way to provide an alternative

route to the northbound freeway ramps (see Figure 16, p. 115). As shown in Table 6, p. 104, the extension of Executive Park Blvd. West would also be needed to accommodate future project and cumulative traffic increases.

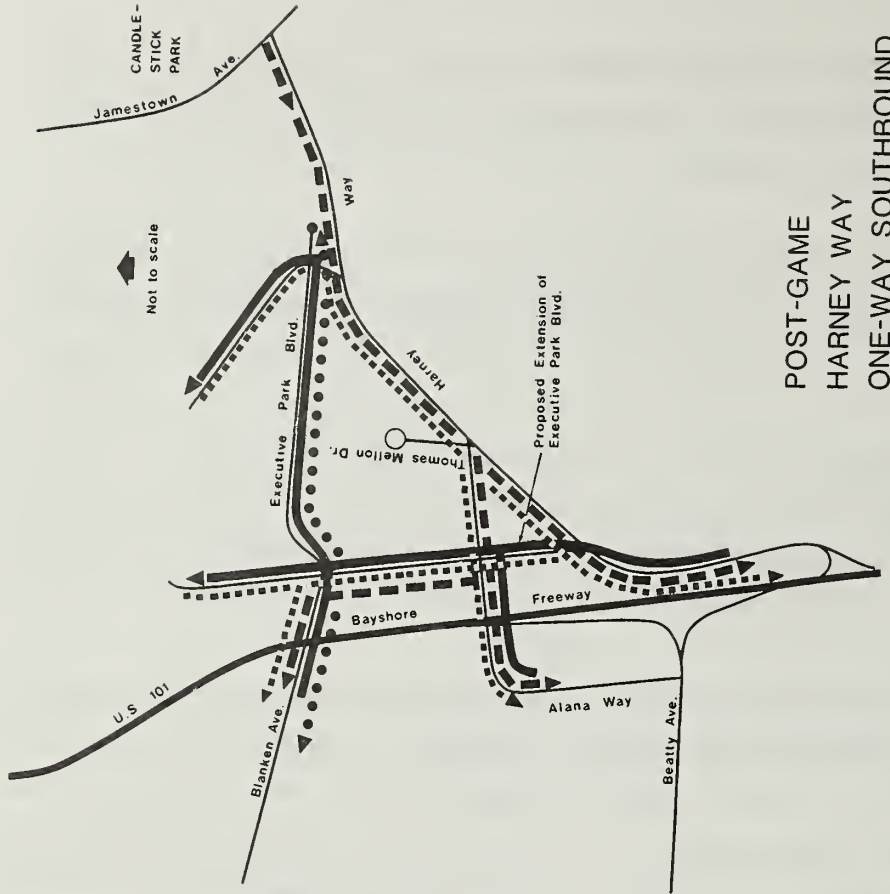
In Figure 16, principal traffic routes are shown for pre-event and post-event conditions. As stated on p. 114 of the Report on Candlestick Park Access (San Francisco Department of Public Works, 1981):

"Access to Executive Park should not be any more difficult under any of the short-range or long-range [access] alternatives than it is at present except for the amount of pre-game and post-game congestion on Harney Way that is encountered, as measured by post-game clearance times."

As the traffic from the project and on-site and local cumulative development would cause p.m. peak-hour intersection operation in the Level of Service D range (with mitigation), any traffic to Candlestick Park games during peak hours would disrupt normal traffic operations in the project area. Consequently, worse traffic impacts would occur on days when events at Candlestick Park either began or ended at times that would coincide with the p.m. peak hour of street and freeway traffic in the project vicinity. Without mitigation, intersection operation during the p.m. peak hour is projected to be at Level of Service F (see Table 6, p. 104). Stadium traffic due to games would add further congestion. On the basis of the 1983 Giants schedule of events at Candlestick Park, disruption of peak hour traffic due to Candlestick Park games would occur approximately 8 times a year. Of the approximately ten 49ers football games that are played at Candlestick Park Stadium each year, only Monday and Thursday night games would conflict with peak-hour traffic. It is not possible to predict how many night games would occur on Monday or Thursday nights, as the night-game schedule is dependent upon the seasonal contract arrangements between the National Football League (NFL) and the television networks. (As the contract arrangements change yearly, it is possible that a particular Candlestick football season would have no night games.) If it were assumed that no more than two football games per year were played at night, then there would be an average of ten days per year that Candlestick Park baseball plus football traffic could overlap with peak hour project traffic. About 40 games per year are played at Candlestick Park on weekdays at times that typically would not conflict with peak hour traffic. Project traffic, outside of peak hours, is expected to be less than during peak hours. Intersection operations would be expected to be in the Level of Service B to C



PRE-GAME
HARNEY WAY
ONE-WAY NORTHBOUND



POST-GAME
HARNEY WAY
ONE-WAY SOUTHBOUND

LEGEND

- TRANSIT
- IN EXECUTIVE PARK
- OUT EXECUTIVE PARK
- CANDLESTICK IN
- CANDLESTICK OUT

SOURCE

SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS

FIGURE 16: TRAFFIC CIRCULATION DURING
EVENTS AT CANDLESTICK PARK

range (with improvements); consequently, Candlestick Park traffic during off-peak periods would be expected to affect traffic operations much as it does at present during off-peak periods.

On days on which events take place at Candlestick Park, parking areas surrounding the stadium reach capacity and very often parking overflows into nearby neighborhood areas. Portions of the Executive Park parking facilities and non-paved vacant areas are currently used as overflow parking for Candlestick Park events. Use of parking facilities at the site is on a pre-arranged basis for weekends only. Once the project is sufficiently developed to use all the on-site parking provided, the arrangement for overflow Candlestick parking will be discontinued./15/ Discontinuing overflow parking would displace parkers to other areas in the vicinity of Candlestick Park.

NOTES - Transportation, Circulation and Parking

/1/ The data for the construction period are from Williams & Burrows, General Contractors, letter, September 8, 1982.

/2/ Proposed phasing was provided by Hellmuth, Obata, and Kassabaum, Architects, San Francisco Executive Park Addendum No. 2, April 1984.

/3/ Trip generation rates are from CalTrans District 04, 1966-1982, Report on Trip End Generation Research Counts (Vol. 1-14).

/4/ 1980 Census Mobility and Travel-to-Work Characteristics, Census Tracts 6002, 6003 in Daly City, ABAG Regional Data Center, 1983.

/5/ Southern Pacific Development Company, July 1982, Proposed Specific Plan for Bayshore Office Park and Baylands Development Area, Brisbane, California.

/6/ Analysis of the transportation impacts of cumulative development in San Francisco EIRs has been, in the past, conducted on the basis of a list of proposed development in the greater downtown area (the March 10, 1984 list of these projects is on file and available for review by appointment at the Department of City Planning, 450 McAllister St., Room 501, San Francisco). The Downtown Plan EIR method is a refinement of the transportation analysis process that uses projections of employment growth, independent of a list of proposed projects, to project future travel. See also Metropolitan Transportation Commission, December 3, 1982, Travel Impacts of Proposed Development on the Peninsula Along Route 101.

/7/ San Francisco Municipal Railway, June 1984, Guide to Frequency of Service.

/8/ Although no publicly funded transit improvement programs have been implemented, Campeau Corporation California will continue its on-going efforts to implement the transportation management measures specified by City Planning Commission Resolution Nos. 7547 and 9089 (see p. 168). Transportation management measures that have been implemented by Campeau Corporation California through June 1984 are described in the following Campeau documents: a) a letter report to the Department of City Planning,

dated June 28, 1983; b) the Annual Transportation System Management Report for 1983; c) a report entitled Transportation System Management, San Francisco Executive Park - Transportation Coordinator Training and Program, dated January 1984; and d) San Francisco Executive Park Development Plan Report, Addendum 2, dated April 1984. These documents are on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor.

/9/ The seated capacity of a typical Muni motor coach is 50 seats. Under the manufacturers' recommendations a motor coach can carry 1.5 passengers per seat (i.e. 50% standees). As noted in the 1984-89 Short Range Transit Plan (Muni, 1984), Muni recognizes the inefficiencies of operating at loads of 1.5 or greater and has thus set a goal of 1.25 passengers per seat as "capacity" during peak periods.

/10/ The proposals are contained in an August 17, 1983 Memorandum from Tony Bruzzone, Muni Planning, to Douglas Wright, San Francisco Public Utilities Commission.

/11/ Anthony Bruzzone, Transit Planner, San Francisco Municipal Railway (Muni); telephone conversation, August 8, 1983.

/12/ Appleyard's data shows that residents of several streets that have nearly identical volumes (fewer than 2000 vehicles per day) have a wide spread of perceptions (percent annoyed by traffic ranged from 10% to 50%). Conversely, Appleyard found that residents on streets with volumes as high as 30,000 vehicles per day were reporting similar percentage annoyed (30%-50%) as residents on the lighter-volume streets.

/13/ City and County of San Francisco, 1979, Planning Code, Article 1.5, Section 151, p. 60 and Article 2, Section 204.5, p. 88.

/14/ Parking rates from Institute of Transportation Engineers, 1982 Transportation and Traffic Engineering Handbook, Second Edition, Table 21-1, p. 647.

/15/ James Smith, Property Manager, San Francisco Executive Park, telephone conversation, July 6, 1983.

F. AIR QUALITY

SHORT-TERM CONSTRUCTION IMPACTS

Excavation and construction of the project would generate particulate (TSP) emissions and would probably cause violations of the state 24-hour TSP standard (100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)) in the immediate vicinity of the site, as do construction activities in general. TSP concentrations and the frequency of standards violations would depend on the soil composition, the types of machinery used, the construction schedule, the proximity of other construction and demolition activities, and meteorological conditions. It is not possible to make accurate projections of TSP concentrations and frequencies of standards violations caused by construction and demolition activities.

Large-sized particulates (greater than 30 microns in diameter) are characteristic of construction particulates. These large-sized particulates settle out of the atmosphere rapidly with increased distance from the site. As a result, dust would fall on cars, streets, sidewalks and other outside surfaces within a 200 to 800 ft. radius of the project construction site, under light wind conditions. Dustfall would not be expected to occur in Little Hollywood or Visitacion Valley neighborhoods. The average construction phase would be completed within 15 months. Site clearance would require an average of five months to nine months during each construction phase. Except to persons with respiratory problems, construction particulates are more of a nuisance than a hazard. Blowing dust may annoy people in the site vicinity when winds exceed 12 miles per hour. Construction particulates could be a nuisance or hazard to those residents already living within the project area after Phase Two.

Diesel-powered construction equipment would also generate emissions, primarily nitrogen oxides (NOx). Such emissions would contribute to total pollutant concentrations, but probably would not cause violations of their standards.

LONG-TERM OPERATION IMPACTS

Upon completion, the project would affect air quality in two ways. Emissions would be generated by project-related traffic (primarily carbon monoxide, CO), and by combustion of natural gas for building space and water heating (primarily nitrogen oxides, NOx). Transportation sources would account for over 95% of project-related emissions. Projected daily emissions of pollutants in 1996 from project-generated traffic are shown in Table 7, p. 119. These emissions are also compared in the table to emissions projected for the entire Bay Area by the 1982 Bay Area Air Quality Plan.

Motor vehicle trips associated with the project would emit about the same amount of nitrogen oxides (NOx) as hydrocarbons (HC); both are chemical precursors of ozone. Emissions from building natural gas combustion would consist primarily of NOx, but would be negligible compared to those from vehicular sources. On the basis of the Livermore Regional Air Quality (LIRAQ) model regional ozone simulations performed for the 1982 Bay Area Air Quality Plan, additional NOx emissions in excess of additional HC emissions could lead to a slight decrease in peak ozone concentrations in the Bay Area. Therefore, emissions of NOx and HC generated by the project would not increase Bay Area ozone concentrations. If the HC emission reduction strategies adopted in the 1982 Bay Area Air Quality Plan are successful, these concentrations are expected to attain the national standard by 1987.

TABLE 7: PROJECTED POLLUTANT EMISSIONS OF THE PROJECT IN 1996
(tons/day) COMPARED TO PROJECTED REGIONAL EMISSIONS

<u>Pollutant</u>	<u>1996 Projected Pollutant Emissions (tons/day)</u>	
	<u>Project/a/</u>	<u>Region/b/</u>
Hydrocarbons	0.25/c/	428
Nitrogen Oxides	0.25/c/	589
Carbon Monoxide	2.70/c/	1,911
Particulates	0.42/c,d/	614
Sulfur Oxides	0.04	217

/a/ BAAQMD, 1981, EMFAC-6C Vehicular Emission Factors. Emissions due to natural gas combustion would be negligible for all pollutants.

/b/ Association of Bay Area Governments (ABAG), BAAQMD, MTC, December 1982, 1982 Bay Area Air Quality Plan, pp. 42, 53, and 112. The region is the nine-county Bay Area Air Quality Management District.

/c/ Includes six minutes of idling time per trip.

/d/ Includes dust generated by vehicular traffic on paved roadways.

SOURCE: Environmental Science Associates, Inc.

It is possible, however, that excess NO_x emissions generated by the project could contribute to a cumulative increase in ozone and/or nitrogenous oxidant concentrations further downwind, outside the Bay Area. In addition, incremental NO_x emissions could, to a relatively small extent, contribute to a cumulative increase in acid rain further downwind, outside the Bay Area.

An analysis of roadside carbon monoxide concentrations at full project buildout, for worst-case dispersion meteorology, was performed with the CALINE 3 (California Line Source Dispersion Model) computer program. A network of 20 road segments (including US 101) and 12 receptor locations in the project vicinity was established. For worst-case purposes, three wind-direction conditions (north, east, and west) were run for each of three emissions scenarios: existing (1984), existing plus 1996 cumulative traffic volumes, and project plus existing and 1996 cumulative traffic volumes. These scenarios do not

include traffic from Candlestick Park Stadium events. Candlestick Park Stadium traffic is variable in amount, season and time of day, and therefore has not been included in the detailed intersection analysis or in the computer calculation of carbon monoxide concentrations. Winter evenings (December and January) are the critical times for potential violations of CO standards in the Bay Area. Therefore, Giants baseball games are unlikely to contribute to such violations. There are a maximum of two winter-evening Forty-Niner football games per year, and no evening games in some years; it is therefore unlikely that evening football games coincide with worst-case meteorology.

The results are summarized in Table 8, p. 121. Each entry represents the highest predicted CO concentration for the three wind conditions. Receptors west of US 101 (Nos. 1-5) experience their highest concentrations with the north wind; receptors east of US 101 (Nos. 6-12) experience their highest concentrations with the west wind. At several locations, future CO concentrations are predicted to be lower than existing concentrations, because the projected decline in the average-vehicle CO emission rate (due to ongoing state and federal emissions controls on new vehicles, and the retirement of older, polluting vehicles) would more than offset the projected increase in traffic volumes and congestion. Predicted concentrations are within the standards for all three scenarios (no violations). The highest predicted concentrations, up to 59% of the standard for the existing case, occur along the west side of US 101 between Blanken Ave. and Alana Way. The largest percentage increase due to the project, 41%, would be along Alana Way between Thomas Mellon Drive and Executive Park Blvd. West.

Emissions of TSP generated by the project and cumulative development would increase TSP concentrations, which could increase the frequency of TSP standard violations in San Francisco, with concomitant health effects and reduced visibility.

The project would not conflict with the pollution-reduction strategies recommended by the 1982 Bay Area Air Quality Plan. These strategies consist primarily of HC and CO emission controls on stationary sources and motor vehicles, and transportation improvements, and are aimed at attaining the national ozone and CO standards. As discussed above, emissions associated with the project are not projected by this EIR to increase ozone concentrations or to result in violations of CO standards, and thus would not conflict with the objectives of the 1982 Bay Area Air Quality Plan.

TABLE 8: PROJECTED CARBON MONOXIDE CONCENTRATIONS (ppm)/a/ - 1996 (FULL PROJECT BUILDOUT)

		Concentration/a/				
Receptor	Averaging Time	1996		Existing + Cumulative/b/ + Project	% Change/c/	
		1984	Existing + Cumulative/b/			
1. W Side US 101, N Side Blanken	1-hour	6.6	5.9	6.2	+5	
	8-hour	4.3	3.8	4.0	+5	
2. W Side US 101, S Side Blanken	1-hour	7.6	6.5	6.9	+6	
	8-hour	4.9	4.2	4.5	+7	
3. W Side US 101, S Side Nibbi Ct.	1-hour	8.1	7.1	7.6	+7	
	8-hour	5.3	4.6	4.9	+7	
4. W Side US 101, N Side Alana	1-hour	7.4	6.5	7.1	+9	
	8-hour	4.8	4.2	4.6	+10	
5. W Side US 101 SB On-ramp, S Side Beatty	1-hour	3.9	4.2	5.6	+33	
	8-hour	2.5	2.7	3.6	+33	
6. SW Corner, OB 1	1-hour	4.1	3.9	4.8	+23	
	8-hour	2.7	2.5	3.1	+24	
7. SW Corner, OB 4	1-hour	4.1	3.8	4.8	+26	
	8-hour	2.7	2.5	3.1	+24	
8. SW Corner, Proposed Hotel	1-hour	3.2	3.1	3.5	+13	
	8-hour	2.1	2.0	2.3	+15	
9. NW Corner, Proposed Alana Way Restaurant	1-hour	4.2	4.4	6.2	+41	
	8-hour	2.7	2.9	4.0	+38	
10. W Side Town Center N Side Exec. Park Blvd. North	1-hour	3.2	3.0	3.4	+13	
	8-hour	2.1	2.0	2.2	+10	
11. SW Corner, Proposed Area 3 Housing	1-hour	2.7	2.8	3.1	+11	
	8-hour	1.8	1.8	2.0	+11	
12. W End Candlestick Point State Recreation Area	1-hour	2.9	3.0	3.4	+13	
	8-hour	1.9	2.0	2.2	+10	

/a/ Calculations were made using CALINE 3, for worst-case (poor-dispersion) meteorology, using EMFAC-6C emission factors. A nominal background level of 2.0 ppm for one-hour and 1.3 ppm for eight hours was included to represent sources outside the network area.

/b/ Cumulative development affecting the intersections noted above includes: on-site development (OB 3, OB 4 and a restaurant south of Alana Way); local development (light-industrial research and development anticipated by Southern Pacific) in Brisbane; and regional increases on US 101.

/c/ Percent change of 1996 Project-Case (Existing plus Cumulative plus Project) over 1996 Base-Case (Existing plus Cumulative).

SOURCE: Environmental Science Associates, Inc.

Due to the proximity of the project area to Highway 101, the possibility exists that a highway accident involving toxic substances could affect the safety of project employees, residents, and visitors. See VI, Mitigation Measures, p. 185 for a discussion of the project's proposed emergency response plan.

G. NOISE

Projected peak-hour traffic noise levels were calculated with the Federal Highway Administration Highway Traffic Noise Prediction Model, SNAP 1 computer program. A network of 20 road segments and 12 receptor locations in the project vicinity was established. Three scenarios were run: existing (1984), existing plus 1996 cumulative traffic volumes, and project plus existing and 1996 cumulative traffic volumes. These scenarios do not include traffic from Candlestick Park events, which would increase noise levels during pre- and post-game periods. On the other hand, during typical peak traffic periods, the results of the analyses represent worst-case levels because shielding effects of intervening structures and topography are not included. The results of the analyses are in any case considered approximations. The results are summarized in Table 9, p. 123.

Traffic noise levels generally are more sensitive to traffic speed than to traffic volumes. US 101 is currently operating near capacity, but at fairly high speed. Thus, the addition of cumulative traffic to the existing volume would be more than offset by an associated decrease in average traffic speed, resulting in a lower noise level generated by US 101 traffic in the cumulative case. This also would be true of several other roadways in the project vicinity. Composite noise levels (the total of all sources) at the receptor locations analyzed are predicted in the cumulative case to be slightly lower than or equal to existing levels.

In contrast, the addition of project traffic to existing and cumulative volumes generally would not be offset by associated decreases in average traffic speeds. Thus, composite noise levels at the receptor locations analyzed are predicted in the project case to be slightly higher than or equal to cumulative levels. In comparison to 1984 existing levels, project-case noise levels are predicted to range from slightly lower to slightly higher.

TABLE 9: PROJECTED PEAK-HOUR ROAD TRAFFIC NOISE LEVELS (dBA)/a/

Receptor	Leq/a/		
	1984	1996	
		Existing + Cumulative/b/	Existing + Cumulative/b/ + Project
1. W Side US 101, N Side Blanken	79	77	78
2. W Side US 101, S Side Blanken	79	77	78
3. W Side US 101, S Side Nibbi Ct.	79	77	78
4. W Side US 101, N Side Alana	78	77	78
5. W Side US 101 SB On-ramp, S Side Beatty	72	72	73
6. SW Corner, OB 1	74	73	73
7. SW Corner, OB 4	74	73	73
8. SW Corner, Proposed Hotel	71	69	70
9. NW Corner, Proposed Alana Way Restaurant	74	73	74
10. W Side Town Center N Side Exec. Park Blvd. North	70	68	69
11. SW Corner, Proposed Area 3 Housing	69	69	70
12. W End Candlestick Point State Recreation Area	69	69	70

/a/ Calculations of Leq were made using SNAP 1 (Simplified Noise Analysis Program), FHWA Highway Traffic Noise Prediction Model, without Candlestick Park Stadium traffic. These calculations did not include the shielding effects of intervening structures and topography; thus, the levels shown represent worst-case approximations.

/b/ Cumulative development affecting the intersections noted above includes: on-site development (OB 3, OB 4 and a restaurant south of Alana Way); local development in Brisbane (light-industrial research and development anticipated by Southern Pacific); and regional increases on US 101.

SOURCE: Environmental Science Associates, Inc.

It should be noted that the largest difference predicted among the three scenarios is two dBA, which is the minimum time-averaged noise change perceptible to the average person. In most cases, the difference is one dBA, which generally is perceptible only to trained observers or those with very acute hearing. It should be further noted that the accuracy of the noise level estimates probably is of the order of two dBA, which means that the estimated changes may not be statistically significant with respect to the predicted noise levels themselves.

In the western half of the project site, Little Hollywood, and the sections of Visitacion Valley and Bayview Hunters Point nearest to US 101, increased noise levels produced by traffic on the local streets would still be masked by traffic on US 101. This would also be true even when peak-hour project-generated traffic coincides with traffic associated with events at Candlestick Park Stadium. In the eastern half of the project site and other areas similarly located farther from US 101, the increased local traffic volumes would dominate the noise environment.

Intrusive noise (single noise events) created within the project area may possibly be amplified in locations throughout Areas 1 and 2 as the steep slopes reflect sound waves and prevent normal noise attenuation. Similarly, intrusive traffic noise within the western half of the project area would probably be audible in portions of Areas 1 and 2 because of such reduced attenuation characteristics.

The proposed hotel and housing would require a noise-reduction analysis, because measured and modeled ambient noise levels are above 60 dBA, the maximum outdoor level recommended for residential uses in the San Francisco Environmental Protection Element (see Table 2, p. 61), and the threshold of the Title 25 Noise Insulation Standards (California Administrative Code). This noise-reduction analysis should include the effects of nighttime Candlestick Park Stadium events and of early-morning local truck traffic generated by the solid-waste transfer station and the Southern Pacific tank farm.

H. ENERGY

CONSTRUCTION ENERGY REQUIREMENTS

General contractors for the project have estimated that about 300,000 kWh of electricity, 50,000 gallons of diesel fuel and 56,000 gallons of gasoline would be consumed by on-site construction equipment over the ten-year project construction period.^{/1/} This would be equivalent to about 18.9 billion at-source Btu (equivalent to about 3,300 barrels of oil). The total construction energy required for the project, including that embodied in material fabrication and materials, that consumed in worker transportation, and that used by construction equipment and construction-related truck trips, would be about 2.6 trillion at-source Btu (about 448,000 barrels of oil).^{/2/} If distributed over the estimated 50-year life of the project, this would be equivalent to about 52 billion Btu per year, or about 11% of the annual building energy requirements (see discussion following).

OPERATIONAL ENERGY^{/3,4/}

Proposed Energy Design

As the proposed project has been conceived of at a master plan level of detail, precise operational energy requirements are unknown at this time. For example, the types and amounts of glass and insulation are unknown. Where design features affecting energy consumption are not known, maximum or upper ranges of energy consumption have been used in the following evaluation. The project would be designed to comply with the prescriptive building energy efficiency standards required by Title 24 of the California Administrative Code, which specify the degree of insulation, weatherstripping, glazing, lighting, and other features required for new buildings. At the general level of design detail, it is not possible to determine if the project would comply with the performance standards of Title 24, an alternative method of compliance based on a comparison of the project's average energy consumption per-sq.-ft. of building area with a per-sq.-ft. State-wide standard based on comparable uses. Prior to approval of each building permit, a detailed energy analysis would have to be conducted to demonstrate that an individual structure would conform to Title 24 performance standards. The following analysis is not intended to demonstrate compliance with Title 24, but is intended to estimate total energy consumption of the proposed project.

Electricity would be used for lighting, air conditioning, ventilation, cooking, elevator operation, office equipment operation, and plumbing system pumping. Natural gas would be used for space and water heating. Project heating, ventilating, and air conditioning (HVAC) would be the prime user of electricity and natural gas. Depending on the number and placement of HVAC units, their distribution systems could be extensive. If so, the amount of electrical power required for circulating fans and pumps could be inefficiently used due to backpressure within the systems. Excessive energy consumption could also result from loss of conditioned air from the building or intrusion of unconditioned air into the building through doors and other openings.

The lighting system would be the second largest consumer of energy in the project. Illumination of office spaces would be provided primarily by fluorescent lights (offices would use the most lighting). Residential units would have mostly incandescent lighting. The specific amount of lighting in each area would depend partially on the color and texture of the walls, ceilings, and other surfaces. The amount of lighting required for the project would add substantially to the cooling loads during the summer, because the electricity used for lights would be converted to heat. Waste heat from lighting, however, would also help heat the building in winter, reducing its requirement for natural gas.

Lighting systems in perimeter areas would be separately controlled to allow for reduced artificial illumination when natural sunlight is available. The stepped and terraced configurations of proposed structures along the hillside would allow relatively narrow floor area, thereby permitting extensive use of daylight. However, this could also result in excessive solar heating of interior spaces during the summer, which would increase the load on the mechanical cooling system. Other than the use of daylight (including passive heating), project plans currently do not include use of solar energy or other renewable energy resources.

The locations and orientations of buildings affect the amount of heating and cooling required. Proposed structures would be set into a south-facing hill, with their longest walls parallel to the face of the hill. The southern exposure would result in a large amount of passive solar heating, which would reduce mechanical heating during the winter, but would increase required mechanical cooling during the summer unless overhangs, shades or vegetation are used to decrease direct radiation by the sun.

PROPOSED ENERGY BUDGET

Total annual energy demand (at-source Btu) for the proposed project and Executive Park site is shown in Table 10, p. 128. Operation of the 1.15 million sq. ft. of proposed office space would require about 18.4 million kWh (about 188 billion Btu) of electricity and about 79.7 million cu. ft. (about 87.7 billion Btu) of natural gas annually. Restaurant/retail and hotel components of the project would together require about 4.2 million kWh (about 43.3 billion Btu) of electricity and about 15.2 million cu. ft. (about 16.7 billion Btu) of natural gas annually. Operation of the proposed 600 residential units would require about 5.2 million kWh (about 52.3 billion Btu) of electricity and about 32.8 million cu. ft. (about 36 billion Btu) of natural gas annually. The total annual energy consumption for the proposed development plan amendment (see Table 10, p. 128) would be about 476 billion Btu per year, an increase of about 2,100% over existing energy use on the site (OB 1 and OB 2). The total energy budget of the entire Executive Park site, including OB 1, OB 2, OB 3 and OB 4, would be about 550 billion Btu per year.

Figures 17 and 18, pp. 129-130 show projected daily and annual electricity and natural gas consumption patterns by use for the project. Daily electricity consumption would peak between 10:00 a.m. and 3:00 p.m. and again between 5:00 and 8:00 p.m. Peak electrical consumption of about 5,200 kWh per hour (see Figure 17), about 1.6 times the average electrical consumption during the day, would occur during the late morning and early afternoon during the late summer and early fall. This peak period would overlap the earlier part of PGandE's systemwide peak period, which occurs between noon and 6:00 p.m. on summer evenings. The project's peak consumption of about 5,200 kWh per hour would be equal to about 0.03% of PGandE's systemwide peak electrical demand. Monthly electrical consumption would fluctuate between an annual low of about 1.9 million kWh per month in temperate July to about 2.7 million kWh per month in the Bay Area's typically warm September./5/

Peak demand for natural gas of about 39 million Btu per hour (see Figure 17) would occur on winter mornings as the hot water boilers come on. Because of their low thermal mass and large surface area, the project buildings would retain little heat overnight and would be reheated to comfort levels each morning. This winter gas peak, about 2.3 times the average daily natural gas load of about 16.7 million Btu per hour, would not coincide with the PGandE system-wide peak period for natural gas, which occurs in early evening hours in winter./6/

TABLE 10: ESTIMATED ANNUAL ENERGY CONSUMPTION (billion Btu, at source)

<u>Item</u>	<u>Natural Gas/a/</u>	<u>Electricity/b/</u>	<u>Total</u>
Existing Uses (OB 1 and OB 2)/c/	3.5	21.5	25.0
Proposed (Approved) Uses (OB 3, OB 4 and Alana Way Restaurant)	<u>2.4</u>	<u>46.9</u>	<u>49.3</u>
Subtotal	5.9	68.4	74.3
Proposed Project/d/			
Office	87.7	188.0	275.7
Residential	36.0	52.3	88.3
Hotel	14.2	26.0	40.2
Restaurant/Retail	2.5	17.3	19.8
Construction (annual amortized for a 50-year project)	<u>-</u>	<u>-</u>	<u>52.0</u>
Project Subtotal	140.4	283.6	476.0
Grand Total Executive Park Site	146.3	352.0	550.3

/a/ Conversion factor of 1,100 Btu per cubic foot of natural gas includes energy lost in production, transmission, and distribution.

/b/ Conversion factor of 10,239 Btu per kilowatt-hour of electricity includes energy lost in production, transmission, and distribution.

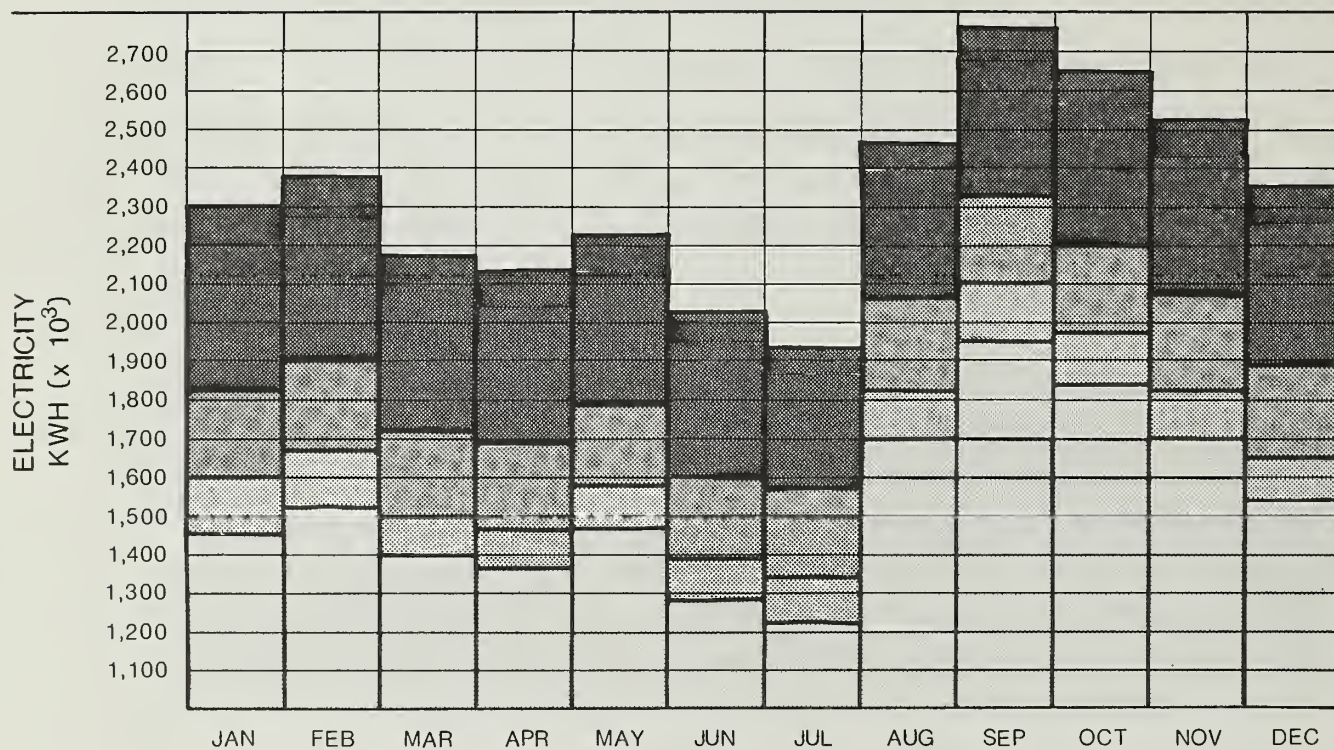
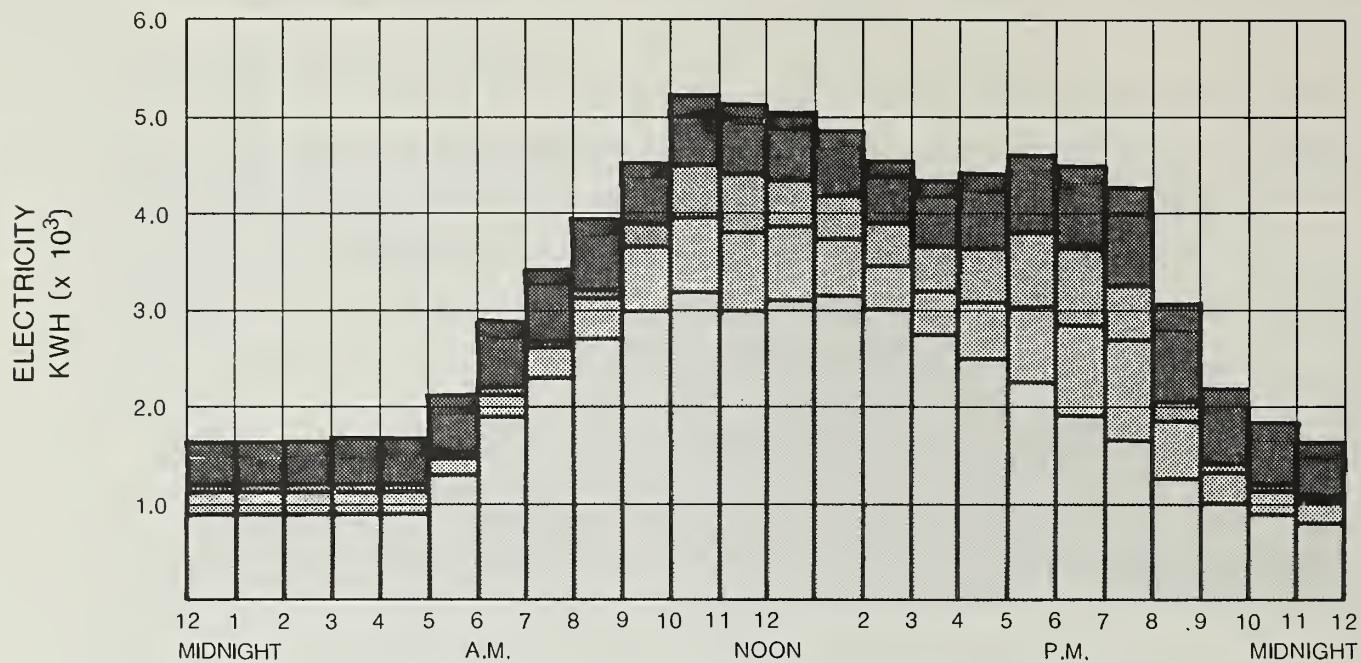
/c/ Based on utility bills from calendar year 1983.

/d/ Does not include project-related travel.

SOURCE: Environmental Science Associates, Inc.

TRANSPORTATION ENERGY

Project-related transportation would cause additional, off-site energy consumption. For the project trip generation described on pp. 96-97 the project-related trips would require about 1.80 million gallons of gasoline and diesel fuel annually. The total annual transportation demand, converted with at-source factors to a common unit, would be about 260 billion Btu. This projected use is based upon the mix of road vehicles expected

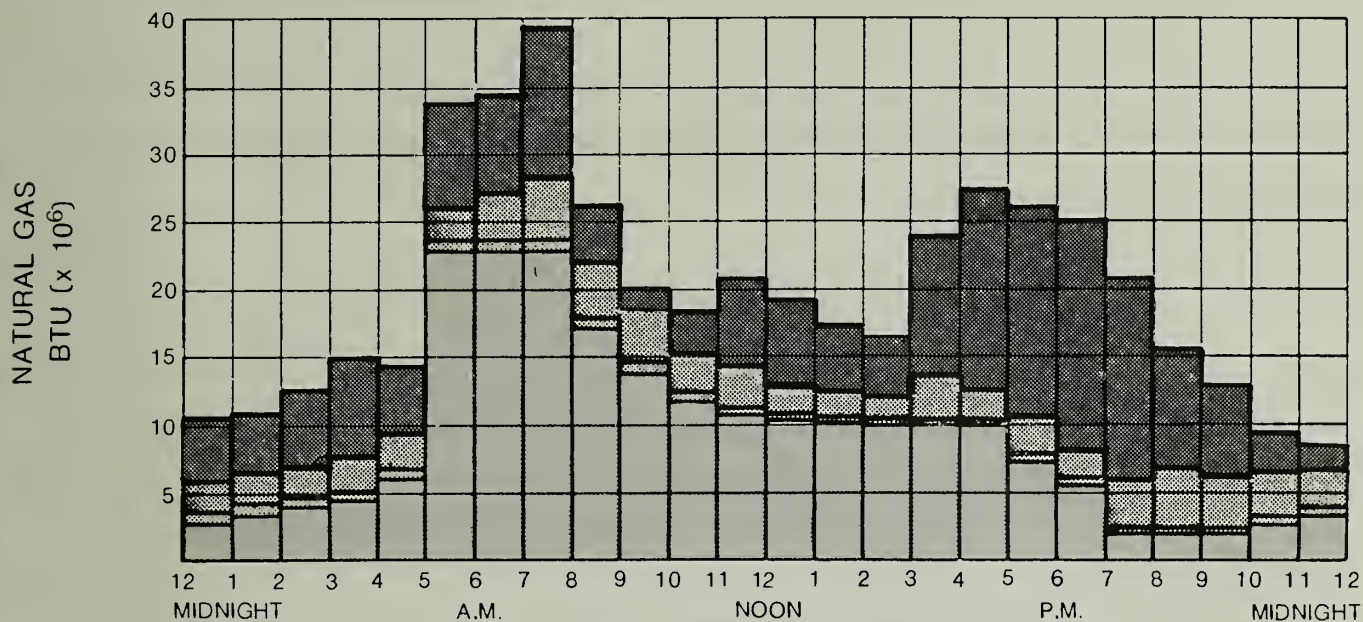


NOTE: Each bar shows the total electricity consumption of all four uses combined. The consumption of an individual use is represented by shaded segments. To determine the amount of consumption by use, subtract the value at the bottom of the segment from the value at the top of the segment.

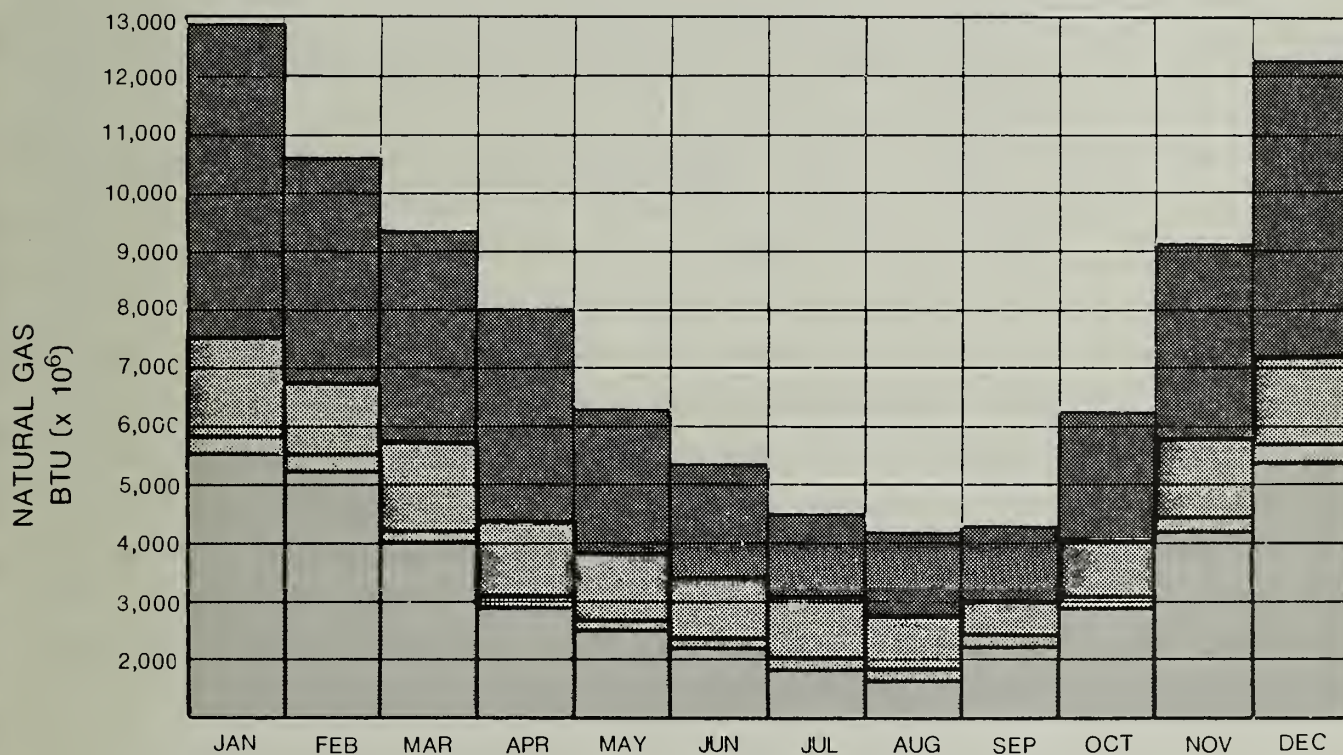
FIGURE 17: PROJECTED ELECTRICITY CONSUMPTION

SOURCE

THE ENGINEERING ENTERPRISE, CONSULTING ENGINEERS AND ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



DAILY NATURAL GAS CONSUMPTION (JANUARY)



ANNUAL NATURAL GAS CONSUMPTION



NOTE: Each bar shows the total natural gas consumption of all four uses combined. The consumption of an individual use is represented by shaded segments. To determine the amount of consumption by use, subtract the value at the bottom of the segment from the value at the top of the segment.

FIGURE 18: PROJECTED NATURAL GAS CONSUMPTION

SOURCE

AIR CONDITIONING COMPANY INC AND
ENVIRONMENTAL SCIENCE ASSOCIATES, INC

in California in 1995. Generally, statewide vehicle fuel use is expected to decrease until 1995 as the vehicle fleet becomes more efficient and the long-term trend of increasing fuel prices continues.

ENERGY CONSERVATION REGULATIONS, PLANS, AND POLICIES

The project sponsor would demonstrate the project's compliance with Title 24 building energy conservation standards prior to obtaining building permits. This would ensure that the project, as designed, would achieve the minimum acceptable level of energy efficiency. The City Planning Commission, through its discretionary review powers, could, as a condition of building permit approval, require that an energy audit be conducted for each structure after a full year of operation. Such an audit would identify design and construction flaws that were not detected prior to actual construction and occupancy of a building.

As a mixed-use commercial/residential development, the project would address City energy policies to establish land-use patterns that reduce the number and distance of transit and vehicle trips; it would also address policies to encourage use of energy-conserving appliances. Relative to projects in the downtown area, the project would not be in a good position to respond to City policies promoting alternatives to motor vehicle use, and increasing the use of renewable and alternative energy systems. The project also would not fully address City policies to discourage use of master metering; master metering would be installed in proposed office uses, but individual metering would be installed in the residences and hotel rooms. Further discussion of applicable energy policies and project compliance status is presented in Appendix F, p. A-33. The project would be partly responsive to Objective 2, Policy 2 of the Energy Element to design and orient buildings so as to minimize energy consumption. The conceptual design maximizes southern exposure of buildings, thereby allowing opportunities for incorporation of active and passive solar design features.

Cumulative Energy Consumption. The energy demand of the project would probably not substantially affect resource extraction, but would contribute to cumulative energy consumption that would eventually deplete non-renewable energy resources. Energy use of major development in San Francisco is discussed in Appendix F, Energy, pp. A-35 to A-36.

NOTES - Energy

- /1/ Craig Wood, Williams & Burrows, Inc., General Contractors, letter, September 8, 1982.
- /2/ Hannon, B., et al., 1978, "Energy and Labor in the Construction Sector," Science 202: 837-847.
- /3/ PGandE indicates that its electricity and natural gas distribution systems in the site vicinity are adequate to serve the project site.
- /4/ The discussion of operational energy consumption is based on information provided by The Engineering Enterprise, Consulting Engineers, and the Air Conditioning Company Inc.; this information is on file at the Office of Environmental Review, San Francisco Department of City Planning, 450 McAllister Street, 5th Floor, and can be reviewed during business hours (8:30 a.m. - 5:00 p.m.).
- /5/ Electrical demand and consumption estimates were provided by The Engineering Enterprise, Consulting Engineers, and are based on data obtained from PGandE and from actual energy consumption of buildings in San Francisco and on the Peninsula.
- /6/ Estimated natural gas use is based on actual operating data obtained from existing, similar buildings. The resulting figures were modified for orientation, and shading. The estimates assume that the buildings would be heated 26 days per month and that heating system efficiency would be about 70%.

I. GEOLOGY, SEISMICITY AND HYDROLOGY

GEOLOGY

Project grading would alter the existing man-made terraced topography of Bayview Hill to a series of level benches separated by moderately steep slopes. About 825,000 total cubic yards of material would be excavated on the site during the six phases of construction./1/ This amount of excavation would be about 25,000 cubic yards less than the amount that would have been excavated (after development of OB 1 - OB 4) under the approved 1978 Development Plan. Of the 825,000 cubic yards, approximately 61,000 cubic yards would be emplaced within the project area as compacted fill; the remaining 764,000 cubic yards would be transported to the Candlestick Point State Recreation Area or to the Southern Pacific development in Brisbane and used as fill./2/ This is the equivalent of about 50,900 truck loads, each with a fifteen cubic yard capacity. Sandstone/shale and greenstone geologic units would comprise most of the excavated material (see Figure 11, p. 65 for the locations of these units on the site). No excavation or grading would occur on any portion of the site above the 220 ft. elevation of the project area.

If appropriate erosion control measures are not implemented, increased erosion and siltation of storm drains and San Francisco Bay would occur as a result of project excavation and grading. The potential for erosion would be minimal if the proposed slope stabilization and landscaping measures (2.25:1 slope cuts and hillside tree planting and hydroseeding of areas with adequate soil) are performed soon after excavation and prior to the November-April rainy season./3/ Slopes would be surveyed prior to hydroseeding to determine which areas have adequate soil. See Ecology Mitigation, pp. 181-182, for soil enrichment measures.

A maximum vertical cut into the hillside of 85 ft. and an average cut of 16 ft. in depth are proposed (see Figure 19, p. 134)./1/ Substantial cuts would be made into the central portion of the hillside for construction of the proposed office, retail and parking uses (Area 2). On the eastern portion of the site (Area 3), two existing benches on the slope would be cut into several smaller terraces that would provide a suitable foundation for the proposed 600 units of housing.

The stability of the proposed cut slopes would depend on the slope steepness and the strength, degree of weathering, and structural characteristics of the underlying rock. Slope stabilization measures would be determined as part of a detailed geotechnical study for the hillside and individual building sites (see VI. Mitigation Measures, p. 179)

The average slope inclination would be 2.25:1; this average includes steep slopes (1.6:1) about 30 to 40 ft. in vertical length separated by relatively flat narrow (15-ft.-wide) terraces. The proposed overall 2.25:1 slope configuration would flatten existing slopes and provide adequate slope stability./4/ Benched (or stepped), as opposed to continuous, slopes would help control surface drainage, and provide access to the upper slopes for landscaping and maintenance.

Project excavation would expose relatively unweathered greenstone and sandstone/shale. In their unweathered forms, these rock types are quite stable. Localized erosion and minor shallow slope failures could occur because of adverse slope/bedding and fracture patterns in the rock, the presence of intensely fractured and sheared upturned layers of weathered rock and the destabilizing effects of infiltrating surface and ground water.

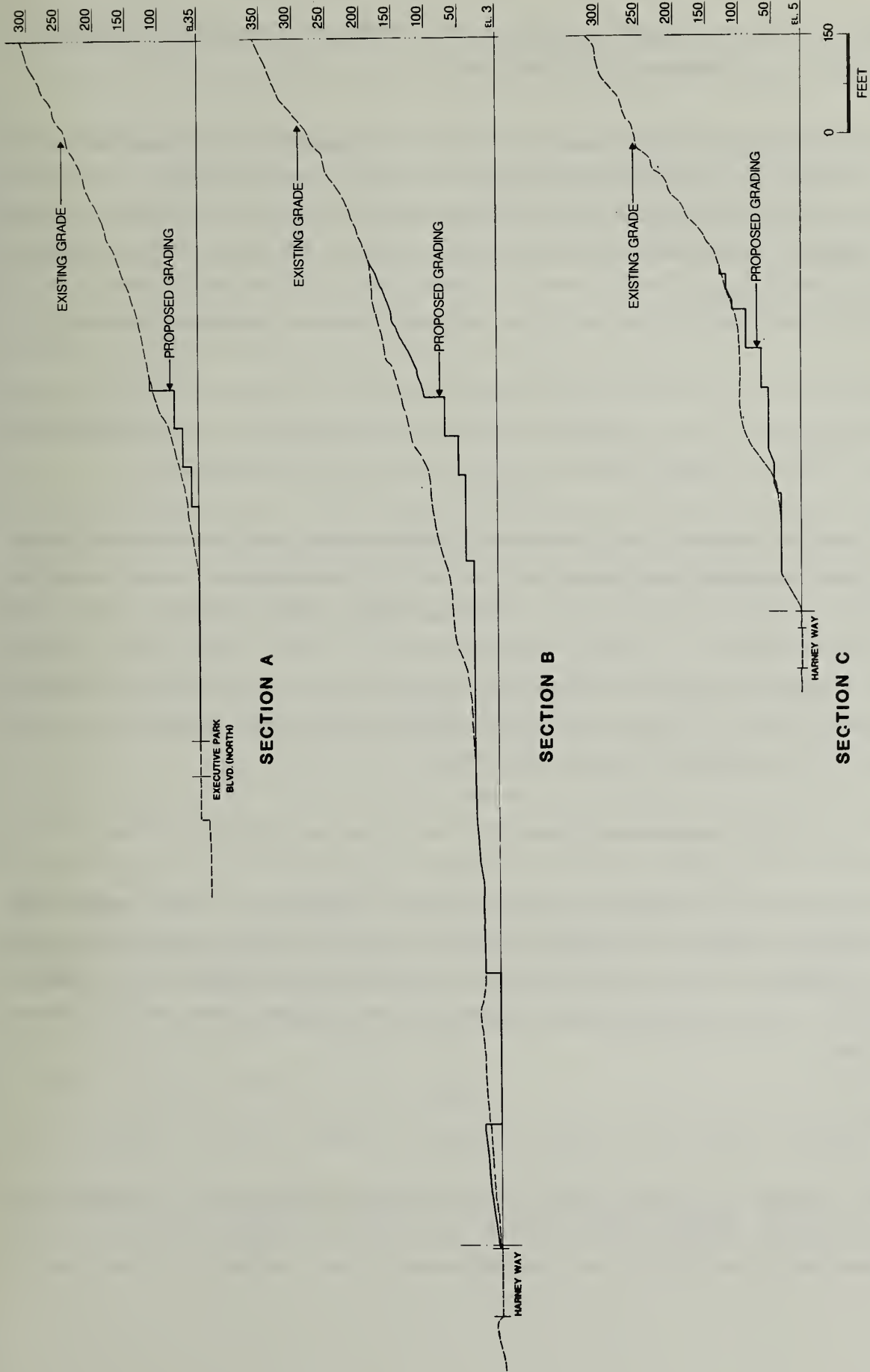


FIGURE 19: EXISTING AND PROPOSED TOPOGRAPHY

See Figure 2 for the location of cross sections.

SOURCE
HELLMUTH, OBATA, & KASSABAUM

The upper six inches of areas to receive fill would be conditioned according to specifications of the Department of Public Works.

The proposed buildings would be supported on shallow spread-type foundations bearing on properly compacted fill, firm natural soil and bedrock. About one-quarter to one-half inch of settlement is anticipated where buildings are placed on six ft. of new compacted fill./4/ Because of consolidation of the moderately compressible soils under loads imposed by new fill, this amount of settlement is expected within the portion of Area 2 where office/retail structures would be constructed north of Executive Park Blvd. (North).

Settlement in Area 2 where the parking structure would be constructed is projected to be less than one quarter of an inch because this portion is underlain by a thin soil layer over bedrock./4/ Where buildings are sited on bedrock, no settlement is expected.

Localized seams of expansive clay may be encountered during project construction as they were in the geotechnical investigation for OB 4./5/ If encountered, these seams would be excavated and replaced with suitable material to minimize the potential for structural damage from settlement. Proposed erosion-control and hillside landscaping measures would be responsive to Land Policy 2 for Conservation of the Environmental Protection Element, which states "Protect land from changes that would make it unsafe or unsightly." (See VI. Mitigation Measures, p. 179.)

Land Policy 5 of the Conservation Plan of the Environmental Protection Element of the Comprehensive Plan states: "Prohibit construction, as a general rule, on land subject to slide or erosion." The project would be partially responsive to this policy. No construction would occur on land subject to slides. Some construction would occur on land subject to erosion; however, the potential for erosion should be minimal if the proposed slope stabilization and erosion control measures (see VI. Mitigation Measures, p. 179) are implemented.

SEISMICITY

All project structures would be designed to meet seismic design standards, as specified in the San Francisco Building Code. Static and dynamic analyses showing building performance during earthquakes would be performed for each building at a later date (as

required by Section 2312 of the 1979 Uniform Building Code, as amended by the City and County of San Francisco Building Code, 1984 edition) prior to building permit approval.

Groundshaking would be the greatest potential hazard. All proposed structures would be designed to resist the lateral loads induced by earthquake shaking. Strong seismic shaking could induce limited shallow failures in the existing and new cut slopes. If loosely embedded boulders are left protruding after the final excavation or inadequate erosion control allows them to become undercut by differential erosion, seismic shaking could trigger their movement downhill. (See VI. Mitigation Measures, p. 179 for grading and drainage measures to reduce the potential for this to occur.)

HYDROLOGY

Localized seepage from cut slopes would probably occur following excavation. Seepage in strong rock presents little problem to slope stability and can be diverted into the surface drainage system. Seepage in the weak shale located in the sandstone rock units (see Figure 11, p. 65) could result in slope instability.

Benches proposed for the upper slopes of the site would direct runoff toward lined channels at the back of the benches instead of forward over the steeply cut slopes. This would reduce erosion because the amount of runoff flowing over steep slopes and the velocity of the surface runoff would be reduced. Erosion would also be reduced because runoff could be directed to drainage structures before causing much erosion.

Dewatering would not be required on any portion of the site during construction because the water table depth is below the depth of the building foundations. Localized areas of seepage within building areas could, however, occur as evidenced by the need to install a gravel subdrain at the southwestern portion of the building pad for OB 3.

NOTES - Geology, Seismicity and Hydrology

/1/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, May 14, 1984.

/2/ Craig Wood, Williams and Burroughs, telephone conversation, May 30, 1984.

/3/ Hydroseeding is the process by which surfaces are vegetated by spraying a mixture of seeds, fertilizer, and water onto the slopes. This process tends to result in rapid growth of cover on the slopes.

/4/ Harding-Lawson Associates, 1977, Geotechnical Investigation, San Francisco Executive Park, San Francisco, California.

/5/ Harding-Lawson Associates, 1982, Soil Investigation, San Francisco Executive Park, Office Building 4, San Francisco, California.

J. ECOLOGY

VEGETATION

Project grading and construction would remove all vegetation below approximately the 180 ft. elevation in Area 2 and the 150 ft. elevation in Area 3; minimal excavation, and therefore minimal vegetation removal, would occur in Area 1. Some vegetation on the upper slopes above the 180 ft. contour would be removed for hillside trails. Development of the 50-acre hillside portions of the project area would decrease by about 24 acres the amount of undeveloped lands in the City and County of San Francisco available for colonization and growth of native plants. The value of the habitat that remained, as well as that of the wildlife habitat contained in Bayview Park (26 acres), would be decreased slightly by the increase in human activity on and around the site. Thus, the effective loss of wildlife habitat could exceed the 24 acres proposed for development in the excavated areas.

Success of the sponsor's landscaping plan would depend on the species that would be selected and the maintenance program. With extensive soil preparation, irrigation and fertilization, and regular treatment with insecticides, fungicides, and other chemicals, a great variety of plants would succeed on the site. However, fertilizers and chemicals could leach into the Bay, with adverse effects. Extensive irrigation would decrease the value of the vegetation to wildlife. Therefore, the plants in the sponsor's preliminary landscaping list, recommended by the sponsor's landscape architect, were selected for drought tolerance and adaptation to difficult soil conditions. These plants would succeed well on the site with minimal care (see Appendix G, p. A-37 for a list of selected plants).

WILDLIFE

The project would displace some of the wildlife now inhabiting the site and would reduce available forage for animals occupying adjacent areas and feeding on the site. Until

landscaping is planted, there would be a temporary loss of habitat during project excavation and grading. Grading would also eliminate small year-round ponds on the site that may be important sources of fresh surface water for wildlife inhabiting the site and the adjacent Bayview Park. Accessible surface water is often a limiting factor in wildlife use of an area.

Landscaping introduced as part of the project would alter the character of the wildlife habitat that remained. If plants selected for landscaping were predominantly native species carefully selected both for their aesthetic qualities and for their value as a resource for wildlife, the landscaping provided by the project could offset lost habitat and could support most native animals now inhabiting the site (see Appendix G, p. A-37 for sponsor's preliminary landscaping plan). If the plants selected for landscaping consisted primarily of non-native ornamental trees, shrubs, and groundcovers, the project could provide more habitat for non-native and urban-adapted native wildlife already common in adjacent urban areas.

See VI. Mitigation Measures, p. 181 for measures that would re-establish surface ponds and use predominantly native species for landscaping. These measures would address General Policy 3 for Conservation of the Environmental Protection Element, which states: "Restore and replenish the supply of natural resources."

Flora and Fauna Policy 2 of the Conservation Plan of the Environmental Protection Element states: "Protect the habitats of known plant and animal species that require a relatively natural environment." The project would be partially responsive to this policy, by preserving part of the project area as open space and plant and animal habitat. The degree to which the project would protect habitats is dependent upon the landscaping that would be introduced, as discussed above.

RARE AND ENDANGERED SPECIES

The project would not eliminate populations of the San Bruno elfin, Mission blue, nor Callippe Silverspot butterflies, nor the host plants on which these species depend (see Section IV. J., pp. 69-70)./1/ Food hosts of the Mission blue butterfly (Lupinus albifrons and Eriogonum latifolium) and of the Callippe Silverspot butterfly (Viola pedunculata) were found growing just north of the site in Bayview Park. Development of the Executive Park site would not directly affect or destroy areas of Bayview Park that may host the

Mission blue and Callippe Silverspot butterflies. However, the project could affect these areas indirectly by altering the microclimate of Bayview Hill, by changing existing water flow patterns, by increasing the number of people in the area, and by introducing to Bayview Hill some non-native plants used in landscaping./1/

The project would not eliminate plant populations of coast rock cress (Arabis blepharophylla) nor Diablo helianthella (Helianthella castanea), which are extirpated from the site. If feasible, the landscaping plan would provide for rare and endangered butterfly and plant species that previously occurred on the site (see Section VI. Mitigation Measure on p. 181). Trails proposed for the northwest corner of the project site in the conceptual site plan would be near areas of native vegetation, which have been identified as potential host plants for rare and endangered butterflies. The final configuration of the trails would be sited to avoid these areas (see Section VI., Mitigation Measure on p. 182). These aspects of the project would address Flora and Fauna Policy 3 for Conservation of the Environmental Protection Element: "Protect rare and endangered species."

NOTE - Ecology

/1/ Dr. Richard Arnold, Research Fellow, University of California, Berkeley, Entomological Survey of San Francisco Executive Park for Rare and Endangered Species, May 31, 1983. A copy of this survey is on file and available for public review at the Office of Environmental Review, 450 McAllister St., Fifth Floor.

K. EMPLOYMENT, HOUSING AND FISCAL FACTORS

The following section is not required by the California Environmental Quality Act (CEQA). It is included here for informational purposes only.

INTRODUCTION

The proposed project would be constructed over a ten-year period; full project occupancy would occur about 1996. Unless stated otherwise, all dollars used in this section are 1984 dollars. This section describes project impacts based on current data and on present trends that seem likely to continue in the future. Precise quantification of future economic conditions and of project impacts on those conditions is not possible.

EMPLOYMENT

Construction Employment

The project would require about 500 person-years of construction labor, an average of about 45 full-time jobs per year throughout the ten-year construction period. About 775 additional person-years of employment would be generated in the Bay Area as a result of the multiplier effect of project construction./1/

The general contractor for the proposed project would be Williams & Burrows, Inc. This firm employs an Equal Opportunity Officer who would administer its Affirmative Action program throughout the construction period. Williams and Burrows, in conjunction with the construction trade unions, has provided apprenticeship and training programs for several construction job categories. Williams & Burrows would work with the construction unions to increase local resident, minority and female representation, and would solicit local area subcontractors, minority subcontractors and female subcontractors. The local area is defined as postal zip code areas 94124 and 94134. Williams & Burrows is committed to employing local residents in all phases of construction and has agreed to a resident employment goal as part of its Affirmative Action Program. Williams & Burrows employed 39% local residents and 77% minorities during the construction of OB 2.

Permanent Employment

At full buildout, the proposed project would consist of a total of 1.15 million sq. ft. of office space, 234,000 sq. ft. of hotel/meeting space (350 rooms), 45,000 sq. ft. of restaurant and retail space, and 425,000 sq. ft. of housing (600 units). On the assumption of full occupancy, about 4,630 full-time jobs would be provided by the proposed project. About 90% of proposed project employees would be office workers; about six percent would be hotel workers, and the remaining four percent, retail and maintenance employees. Total employment at the Executive Park site, including existing and proposed office and restaurant uses, would be about 6,440 employees. This projection of employment was derived on the assumption of an average amount of building space per employee by employment type (see Table 11, p. 141).

TABLE 11: PROJECTED PERMANENT EMPLOYMENT AT THE EXECUTIVE PARK SITE

<u>Employment Type</u>	<u>Building Space (Gross Sq. Ft.)</u>	<u>Space per Employee (Sq. Ft.)</u>	<u>Projected Number of Employees/a/</u>	<u>Percentage of Project Total Employment</u>
Office	1,150,000	275 /b/	4,180	90.3%
Retail	45,000	350 /b/	130	2.8
Hotel	350 rooms	0.74 emp./room/b/	260	5.6
Office Maintenance	1,150,000	38,000 /c/	30	0.6
Residential Maintenance	425,000	14,000 /d/	30	0.6
TOTAL PROJECT AREA EMPLOYMENT			4,630	100.0% /e/
EXISTING EMPLOYMENT - OB 1, OB 2 /f/			770	
ANTICIPATED EMPLOYMENT - OB 3, OB 4			1,040	
TOTAL ON-SITE EMPLOYMENT			6,440	

/a/ All numbers are rounded to the nearest 10 employees.

/b/ City and County of San Francisco, Downtown Plan EIR, certified October 18, 1984.

/c/ Office buildings generally employ one janitor per 38,000 gross sq. ft.

(Eric Hall, Secretary-Treasurer, Building Service Employees Union, Local 87, telephone conversation, July 20, 1984).

/d/ Judgment of Dr. Jan Newton, ESA Staff Economist.

/e/ Percentages do not add to 100% due to rounding.

/f/ Assumes full occupancy of OB 1 and OB 2. As of July 1984, OB 2 was about 70% occupied.

SOURCE: Environmental Science Associates

An October 1982 survey of employees at OB 1 and OB 2 indicated an employee occupancy of about 290 sq. ft. per employee. Occupied floor area in OB 1 (98%) and OB 2 (70%)/3/ represents about 11% of total office space that would be developed at the site, if the project is approved. Because of the low percentage of project occupancy at the time of the 1982 survey, office space of 290 sq. ft. per employee is not necessarily representative of space per employee at the site in the future. Therefore, the standard rate (based upon surveys of San Francisco offices) of 275 gross sq. ft. of building space per employee was used to estimate office employment.

San Francisco Planning Commission Resolution No. 7547 (see Appendix A, p. A-2) requires development of an Affirmative Action Employment Plan which would include descriptions of programs to be initiated by the sponsor or lessees at the request of the sponsor which will promote employment opportunities for San Francisco residents, particularly those living in nearby neighborhoods.

The sponsor has worked, and would continue to work, to improve local resident employment opportunities during permanent operation of the project. To this end, the sponsor would meet with contractors, vendors, and service/maintenance providers to the project to encourage their hiring of local residents. The sponsor would also hold discussions with project tenants to encourage them to hire local residents when feasible.

Secondary Employment

Through the multiplier effect, secondary employment and income would result from permanent project employment. Each employed person would generate additional employment through expenditures for goods and services. This estimate would vary depending on the types of tenants that would occupy the project after completion.

Employee Salaries

Salaries of project employees would vary according to job classification, level of experience, and whether the position is union or nonunion. Household incomes of existing Executive Park employees were surveyed in the October 1982 questionnaire (see Appendix D, Figure D-1, p. A-24, Questions 17 - 18). The range of household incomes is shown in Table 12, p. 143.

On the basis of these data, it is reasonable to assume that the median income of office employees of the project would be somewhat above \$25,000 (1984 dollars).^{/4/} The median income of retail employees in California was about \$15,100 in June 1984.^{/5/} The incomes of hotel, maintenance, and restaurant employees would probably be similar to those of retail employees.^{/6/} These assumptions about employees' incomes were used to project housing affordability, payroll tax revenues, and sales tax revenues.

TABLE 12: HOUSEHOLD INCOME OF EXISTING OFFICE EMPLOYEES AT THE EXECUTIVE PARK SITE (OB 1 and OB 2)

<u>Household Income Per Year/a/</u>	<u>Percent (%)b/</u>
less than \$12,000 per year	8.5
\$12,000 - \$14,999	5.4
\$15,000 - 24,999	26.2
\$25,000 - 49,999	38.5
\$50,000 - 74,999	13.1
\$75,000 - 99,999	5.4
\$100,000 and above	<u>3.1</u>
TOTAL	100.0%

/a/ Incomes refer to incomes of all persons residing in a single household (1982 dollars).

/b/ Entries do not add up to 100% because of rounding.

SOURCE: Appendix D, Figure D-1, p. A-24 and Environmental Science Associates, Inc.

OFFICE SPACE MARKET

Although the project would be located in San Francisco, the characteristics of the proposed project would more closely resemble those of a suburban office development than of a downtown office development. The project would provide about 1.15 million sq. ft. of office space in addition to the 284,000 sq. ft. that is approved for construction on-site (OB 3 and OB 4) and the 210,000 sq. ft. that currently exists on the site (OB 1 and OB 2). This would be in addition to the net increase of 21.7 million sq. ft. of office space forecast for the C-3 District of San Francisco over the 1984-2000 period./7/

In addition to the project, there are office developments proposed for various locations in San Francisco outside the downtown area. The total square footage of these projects is small in comparison to that proposed for the downtown area.

Although on a smaller scale, similar office development growth is occurring in San Mateo County. Existing office space in Northern and Central San Mateo County (defined as Daly City, Brisbane, South San Francisco, San Bruno, Millbrae, Burlingame, Foster City, and

San Mateo) totals about 6.6 million sq. ft. Office projects proposed, approved or under construction in this area total roughly 17 million sq. ft., representing about a 250% increase above the amount of office space which currently exists in Northern and Central San Mateo County./8/

The project could have an effect on both downtown San Francisco and suburban San Mateo office markets. If all proposed developments are built, there could be a period when there is an oversupply of office space until the market absorbs the space. During this period, commercial rents may be expected to stabilize or decline and vacancy rates would rise. The number of proposed office developments could decline if there is insufficient demand for office space presently planned or under construction and for office space that would be vacated upon expiration of current leases. Office rents in the proposed project would be about \$22 per sq. ft. annually, substantially less than the rents for first-class office space in the downtown core, but similar to office rents in new office space in San Mateo County and the South of Market area of San Francisco./8,9/

HOTEL MARKET

The project would develop a 350-room hotel plus meeting and restaurant facilities during Phase Six construction in 1996. Occupants are anticipated by the sponsor's hotel marketing consultant, Laventhol and Horwath, to be primarily persons attending meetings, and overnight business travelers, some of whom would be associated with the on-site office space. Anticipated room rates of about \$60 per night would reflect suburban (up to about \$75 per night) rather than downtown (often over \$100 per night) hotel-room rates because the proposed hotel would not be close to tourist attractions and downtown amenities.

According to the San Francisco Convention and Visitors Bureau, over 7,000 additional hotel and motel rooms, exclusive of the project, are planned or under construction in San Francisco./10/ Over 4,000 of these rooms are scheduled for completion before mid-1985. If all are constructed, the stock of San Francisco hotel rooms renting for \$60 or more per night (1981 dollars) would increase by 31%./11/ According to estimates made by the San Mateo County Convention and Visitors Bureau, over 10,000 higher-priced ("quality") hotel and motel rooms are proposed, approved or under construction in San Mateo County. If all are built, the stock of "quality" rooms in the Peninsula would increase by about 130%./12/

Future demand may not be sufficient to absorb all of the new hotel rooms proposed or under construction in San Francisco and the Peninsula. However, it is not possible to verify forecasts of hotel room demand because of the uncertainty of future economic conditions. Factors influencing demand for hotel rooms include the condition of the national and international economies, air fares and the supply of adequate tourist facilities (see Appendix H, pp. A-40-A-41 for a discussion of these factors).

Visitors at the proposed hotel would spend \$9.89 million per year (exclusive of expenditures for hotel rooms and for food and beverage within the hotel). The distribution of these revenues is shown in Appendix H, Table H-1, p.A-39./13/ Many purchases by hotel occupants would be from local merchants, particularly restaurants outside of the hotel, and retail stores. Part of this demand for goods and services by hotel occupants would be satisfied by the 45,000 sq. ft. of new retail/restaurant space proposed as part of the project. Not all of the \$9.89 million of expenditures would be in San Francisco; some expenditures would undoubtedly be captured by businesses in northern San Mateo County.

HOUSING

On the basis of the October 1982 survey of existing employees at OB 1 and OB 2, the distribution of increased employment attributable to the project would be as shown in Table 13, p. 146./14/

The survey results indicate that total new on-site office workers would occupy about 1,070 households in San Francisco. On the basis of the City's Office Housing Production Program (OHPP) formula/15/ and the survey results from OB 1 and OB 2, the office space proposed by the project (1.15 million gross sq. ft.) would generate a demand for between 1,022 and 1,070 housing units. (See IV. Setting, p. 71 for discussion of the Office Housing Production Program.) One reason for the range of housing units projected is that both the OHPP office employee density factor of 250 sq. ft. per employee and the Downtown Plan EIR office employee density factor of 275 sq. ft. per employee were used to calculate housing demand.

The 1,022 to 1,070 unit demand in San Francisco ultimately generated by the project is the total of both the direct demand (persons moving to the City as a result of obtaining jobs at the project) and the indirect demand (persons moving to the City as a result of

TABLE 13: PROJECTED DISTRIBUTION OF PROJECT OFFICE EMPLOYMENT AND HOUSEHOLDS, BASED ON EXISTING EMPLOYEES AT OB 1 AND OB 2

	<u>San Francisco</u>	<u>Peninsula (San Mateo and Santa Clara Counties)</u>	<u>East Bay (Alameda and Contra Costa Counties)</u>	<u>North Bay (Marin and Sonoma Counties)</u>
Distribution of Existing Employees	37%	42%	12.5%	8.5%
Distribution of Projected Employees	1,550	1,760	520	360
Existing Employees per Household	1.45	1.91	2.00	1.43
Projected Households	1,070	920	260	250

SOURCE: Environmental Science Associates, Inc., based on projected employment (see Table 11, p. 141) and results of a survey of existing employees (see Appendix D, Figure D-1, p. A-24).

obtaining jobs created or replaced in buildings vacated by businesses moving to the proposed project). An estimate of new housing demand directly attributable to the project must subtract new project workers who would already reside in San Francisco, before their employment began at the Executive Park site. For the purpose of this analysis, it is assumed that existing San Francisco residents who would work at the project would not desire to seek new housing in the City.

The October 1982 survey of OB 1 and OB 2 employees indicates that construction of OB 1 and OB 2 resulted in a negligible increase in direct demand for housing in San Francisco resulting from development. All survey respondents resided in Bay Area counties before obtaining their jobs at OB 1 or OB 2. Approximately 80% of the workers indicated that they had not moved to a new residence since beginning work at Executive Park. About two percent of total respondents had moved to San Francisco from other Bay Area counties after moving or obtaining their job at the OB 1 and OB 2. This increase in housing demand was offset by the 3.4% of the respondents who moved out of

San Francisco after obtaining employment at Executive Park. Should these patterns of employee movements hold true for the project, direct housing demand in San Francisco attributable to the project would be minimal.

New office construction also generates indirect housing demand. This secondary housing demand would be generated by jobs which are created or replaced in buildings that would be vacated by project tenants./16/ The principal source of the office tenants at OB 1 and OB 2 has been existing San Francisco firms that have relocated from the downtown./17/ Because of this transfer of employees from existing San Francisco buildings to new buildings, a portion of new employees in the City may be expected to locate in the older vacated buildings. Because of these complexities and the lack of empirical data, the secondary housing demand cannot be estimated, because it is not possible to trace the chain of employee movements and to know in advance which buildings will be vacated (and which other buildings will be vacated to fill the first level of vacated space)./16/

The prices of the proposed units would range from \$116,000 for the one-bedroom units to \$132,000 for the two-bedroom units (1984 dollars). Section 134I of the San Francisco Subdivision Code requires provision of 10% low- and moderate-income housing in projects of more than 50 dwelling units, if subsidies are available. On the basis of this requirement, maximum purchase prices for the low- and moderate-income units would range from \$54,000 to \$60,750 for one-bedroom units, and from \$81,000 to \$91,250 for two-bedroom units (all 1984 dollars)./18/ The project sponsor could meet this requirement by lowering the proposed prices for some of the on-site units, providing an equivalent number of low- and moderate-income units off-site, or making an in-lieu payment to the City./19/

Housing Affordability

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, Section 15150a, discussion of performing a housing affordability analysis for new office workers is incorporated by reference from the Second Street Square Final EIR, 82.591E, certified January 12, 1984 (pp. 53-55)./20/ In summary, while a survey of occupants of a building comparable to the project would yield some housing affordability data, accurate identification of housing affordability characteristics of persons entering the San Francisco housing market as a result of a new office project is virtually impossible. Two major steps are required in such analysis. The first step involves identification of the

workers who are newly employed in San Francisco as a result of the project. The problems with making such a determination include: a) the identity of persons employed in the newly constructed space cannot be known prior to occupancy of the project; b) persons working in newly constructed space would not necessarily be newly employed in San Francisco; c) newly created employment opportunities may be filled by persons already employed in San Francisco; and d) persons newly employed in San Francisco in newly created jobs may not have obtained their jobs as a result of the project.

The second step involves determining the amount of money that the household of the new workers could, or would, pay for housing. Such an analysis would require a survey beyond the usual areas of housing preference, current housing costs and income, to determine personal household information such as family assets, debts, tax position, etc. Since many people may be unwilling to provide such personal information, the responses received would not accurately reflect current housing affordability.

The sponsor and its housing consultant are studying the feasibility of developing affordable housing on the site and whether the housing should be rented or sold. Sale prices under consideration for affordable housing are in the range of \$60,000 to \$100,000.

FISCAL

The following fiscal impact analysis assumes full project occupancy and uses current economic data. Revenues resulting from project implementation cannot be projected fully to 1996, the year of full project occupancy, because tax rates and fiscal considerations will undoubtedly change. Dollar values and tax rates are for the 1983-84 fiscal year.

Revenues

As shown in the following analysis, the proposed project would generate about \$4.48 million (1984 dollars) annually in total property, payroll, sales, and gross receipts tax revenues to the City's General Fund, based on existing tax rates and current economic data. The project would generate a net increase of about \$4.47 million in revenues generated to the General Fund.

Assessed Valuation and Property Taxes

The proposed development plan amendment (beyond OB-4) would have a fair market value of about \$287 million in 1984 dollars. Under the 1983-84 property tax rate of \$1.15 per \$100 assessed valuation (assessed value equals market value), the project would generate about \$3.30 million in property tax revenue (including property taxes from residential units). About \$2,870,000 would be generated by the non-bond tax rate of \$1 per \$100 assessed value; of this amount, about \$2,509,000 would accrue to the City's General Fund, a net increase of about \$2,497,700. The complete distribution of total bond and non-bond property tax revenue that would be generated by the project is shown in Table 14, p. 150.

Payroll / Gross Receipts Tax

Office and retail tenants of the proposed project would pay either the payroll or gross receipts tax, whichever is greater. On the assumption that all tenants would pay a payroll tax, an estimated annual payroll of \$111 million,^{/21/} and a tax rate of 1.5%, payroll tax revenues from the project would be about \$1.67 million (1984 dollars).^{/22/} The owners of the project would pay a 0.3% gross receipts tax on their rental income. The estimated total annual rental income from the office uses of the project would be about \$25.3 million (1984 dollars), yielding an annual gross receipts tax revenue of about \$76,000 (see Table 15, p. 151).

Sales Tax

Sales tax revenue would be generated by both employee expenditures and on-site retail sales. On the basis of an annual payroll of about \$111 million, taxable expenditures would be about \$4.89 million.^{/23/} Based on annual sales per square foot of \$120 for the retail space^{/24/}, taxable on-site sales would total about \$5.4 million. Annual sales tax revenue to the General Fund from the 1.25% sales tax would total about \$129,000 (1984 dollars).

Hotel Tax Fund

On the basis of annual hotel room sales revenue of about \$5.75 million (assuming 75% occupancy^{/25/}) and a 9.75% hotel room tax rate, the hotel portion of the project would generate about \$561,000 in hotel room tax revenue. Of this amount,

TABLE 14: DISTRIBUTION OF PROPERTY TAX REVENUES FROM THE PROJECT SITE
IN 1996 (1983-84 dollars)

<u>Agency</u>	<u>Ad Valorem Tax Rate</u>	<u>Percent/a/</u>	<u>Revenues/b/</u>
City and County of San Francisco			
General Fund	0.8741	76.0	\$2,509,000
Open Space Acquisition	0.0250	2.2	71,800
Bond Repayment	0.0812	7.1	233,100
City School Superintendent	0.0010	0.1	2,800
S.F. Community College District	0.0144	1.3	41,500
S.F. Unified School District			
General Purpose	0.0770	6.7	221,000
Debt Service	0.0079	0.7	22,600
Bay Area Air Quality Management District	0.0021	0.2	6,000
BART			
General Fund	0.0063	0.6	18,200
Debt Service	<u>0.0609</u>	<u>5.3</u>	<u>175,000</u>
TOTAL	\$1.15	100	\$3,301,000

/a/ Sum of column entries does not equal 100% because of rounding.

/b/ Based on the 1983-84 composite tax rate of \$1.15 per \$100 assessed valuation and an assessed valuation of \$287 million (entries rounded to the nearest \$100).

SOURCE: San Francisco Controller's Office; calculations by Environmental Science Associates, Inc.

TABLE 15: DIRECT NET TAX REVENUES GENERATED TO THE GENERAL FUND FROM THE PROPOSED PROJECT

<u>Tax Category</u>	<u>REVENUES</u>			<u>Net Increase/a/</u>
	<u>Tax Rates (1983-84)</u>	<u>Existing Site/a/</u>	<u>Proposed Project/a/</u>	
Property Tax	76.0% of \$1.15/\$100 fair market value	\$11,000	\$2,509,000	\$2,498,000
Payroll Tax	1.5% of gross payroll expenditures	0	1,669,000	1,669,000
Gross Receipts Tax	0.3% of total rental income	0	76,000	76,000
Sales Tax receipts	1.25% of gross retail	0	129,000	129,000
Hotel Tax	18% of the 9.75% tax on hotel room receipts	<u>0</u>	<u>101,000</u>	<u>101,000</u>
Totals		\$11,000	\$4,484,000	4,473,000

/a/ Rounded to nearest \$1000.

SOURCE: Environmental Science Associates, Inc.

approximately \$101,000 (1984 dollars) would accrue to the City's General Fund. The remainder would be distributed as shown in Appendix H, Table H-2, p. A-40. Future distributions of hotel tax revenue accruing to the General Fund would change, as these revenues are determined each year by the Board of Supervisors.

The net increase in direct revenues that would be generated by the project is \$4.47 million, as shown in Table 15, p. 151.

Muni and Transportation-Related Costs and Revenues

The estimated 1981-82 (most recent available) net marginal cost (or increase in the deficit for Muni operations) per additional ride is \$0.50./26/ The project would generate about 444,000 peak-period rides per year, which would generate a cost deficit to Muni of

about \$222,000./29/ This conclusion should be qualified because the Muni deficit-per-passenger-trip figure is based on 1981-82 data, and because the total project-generated deficit is calculated only for those riders who use Muni as their primary mode of transportation, excluding riders who would use a combination of transportation modes, such as Muni and Caltrain. More-recent data that would allow a more precise estimate of costs are not available.

The increased ridership demand resulting from the project could require additional Muni service (see further discussion of Muni ridership on pp. 99-101).

The project would offset this deficit through its contributions to the General Fund and sales tax revenues.

The project would contribute to General Fund revenues, which would be derived from a variety of taxes levied on the proposed project. In the past, a portion of General Fund revenues have been allocated to Muni. The historical level of contribution of General Fund revenues to Muni may change, however, due to the recent court approval of the Transit Impact Development Fee (discussed below). Therefore, the annual General Fund contribution of the project to Muni cannot be projected.

On April 27, 1981, the San Francisco Board of Supervisors approved Ordinance 224-81 to assess new downtown commercial development to support Muni. The ordinance established a one-time fee (the Transit Impact Development Fee) of up to \$5.00 per gross square foot upon construction of new downtown office space, to provide funds for operating costs and capital improvements for Muni transit services. On September 27, 1984, the ordinance was upheld in San Francisco Superior Court. Further legal appeals of the ordinance may be made. This fee is intended to recover additional transit costs for the entire economic life of a building, and thus cannot be compared directly to the annual Muni deficit discussed on p. 157.

Under the ordinance, the project would not be subject to payment of the Transit Impact Development Fee because it would be outside the area in which the fee is imposed.

Effective April 1, 1982, the Muni fare per ride was increased from \$0.50 to \$0.60. The increase was primarily to meet the fare box revenue requirements of Assembly Bill (AB) 1107. AB 1107 allows Muni to receive a portion of the one-half cent BART sales tax

revenue for operating expenses, provided that at least one-third of Muni's annual operating cost is paid from fare box revenues. The share of the one-half cent sales tax revenue allocated to Muni varies from year to year, depending on the relative financial position of Muni, BART, and AC Transit, and therefore cannot be quantified.

Muni is currently considering construction of an at-grade crossing of the Southern Pacific Railroad at Bayshore Station to provide cross-town service to the project area from the 29-Sunset line. Muni has requested a contribution from the project sponsor of about \$150,000 to finance the crossing. The sponsor has not agreed to this contribution (see p. 167).

Total estimated cost for roadway improvements, exclusive of the grade crossing for Muni, is about \$1,850,000 (1984 dollars). These improvements would benefit other users in addition to the proposed project. Objective 2, Policy 2 of the Commerce and Industry Element states: "Seek revenue measures which will spread the cost burden equitably to all users of City services." To be responsive to this objective, the sponsor would have to contribute equitably for the costs of improvements. At this time, the sponsor has not agreed to participate in joint funding of these improvements (see p. 167).

Other Costs and Net Revenues

Costs for water and sewer service would be paid through user charges. Because the project area is undeveloped, City costs for police, fire, street maintenance, and general government services would increase as a result of the project.

According to the Final Initial Study for Executive Park, existing City services for fire, police, schools, parks and recreation facilities would be adequate to serve the project (see Appendix B, pp. A-15 - A-17). If roads and street lights within the development are dedicated to the City, additional costs for operation and maintenance would be absorbed by the City. City service agencies consulted during preparation of the Initial Study were not able to estimate cost increases attributable to the project.

The project would increase the residential and working population of the City and hence increase general City expenses. On the basis of average household sizes of 1.5 and 2.5 persons per one-bedroom and two-bedroom unit, respectively, the residential population of

the site would be about 1,028. In 1983-84, per capita expenditures for the total San Francisco budget are \$2,732./27/ Total cost attributable to the residential portion of the project, with this method, is \$2,808,600. This cost estimate is high because it includes City expenditures for public welfare, health and schools, which would probably be lower on a per capita basis for project residents than for the City-wide population. This is because project residents would probably include fewer public school students and receive proportionately fewer public welfare and health services than the City-wide population. An average cost analysis, as used above, generally overestimates cost impacts on cities with unused service capacities and declining populations.

On the basis of the cost estimates above, it is likely that project-generated net revenues (about \$4.47 million) would exceed projected costs.

CUMULATIVE EFFECTS

Housing

The proposed project would contribute to cumulative housing demand in the City. Applying the results of a survey of existing employees at OB 1 and OB 2 indicates that about 1,070 San Francisco households would be formed in the City by total project employees. OB 3 and OB 4, with a total of 284,000 sq. ft., have been approved but not constructed (see Table 1, p. 25). Adding this on-site cumulative office development to the proposed project results in a projection of 1,330 households formed by the project plus on-site cumulative development.

Residence Patterns

Forecasts of residence patterns in the year 2000 were prepared for the Downtown Plan EIR./28/ These forecasts incorporate future housing, labor force, and employment patterns in San Francisco and throughout the region and consider changing demographic, housing market, and transportation factors. According to the Downtown Plan EIR forecasts, approximately 189,000 C-3 District workers would be living in San Francisco in 2000. This represents an increase of 30,000 residents employed in the C-3 District over the 159,000 estimated for 1984, a 19% increase./29/

This impact on the housing market would be mitigated to a certain extent because various office developers have agreed to provide units, through City Planning Commission final approval resolutions, or have proposed units on-site./30/

Cumulative office development would increase the City's current high ratio of jobs to housing supply. In market situations where demand exceeds supply, prices can be expected to increase. Factors independent of office development and outside the control of the City such as immigration, interest rates, State and Federal tax policies, and economic trends also influence the housing market. Quantification of the effects of cumulative office development on San Francisco housing prices is not feasible.

The new demand could be accommodated through additions to the housing stock, increases in the number of workers per household, and/or displacement of existing residents. Large additions to the San Francisco housing stock are not anticipated in the near future because the housing construction industry has declined due to high costs and interest rates. Census data indicate that the number of persons per household historically has been declining. This demographic trend will probably not reverse itself in the next few years because of a variety of factors, including divorces and separations, departure of young adults from families, and the increasing proportion of elderly population. The possibility exists that gentrification -- the replacement of low-income households by more-affluent ones -- could occur throughout the City as more affluent households compete for housing./31/

Fiscal Considerations

Cumulative development in the project vicinity may necessitate improvements to City services. It is difficult to estimate the cost of the improvements attributable to a single project. Revenues to the City would probably increase at a slower rate than costs, because of limitations on property tax increases imposed by California Constitution Article XIII A (Proposition 13). There would be an initial fiscal benefit of new office developments. Then there could be a time when cumulative costs of providing services to currently proposed and approved development would be higher than revenues provided. This would be the case only if no new revenue sources are found, the rate of new development declines, and proposed development is not sold at some future date. In general, commercial property changes ownership less frequently than residential property, and therefore would be reassessed less frequently than residential property, yielding fewer increases in tax revenue to offset increases in City services costs.

NOTES - Employment, Housing and Fiscal Factors

/1/ Projections are based on an Input-Output Model of the Bay Area economy from Cooperative Extension Service, University of California, Berkeley, San Francisco Bay Area Input-Output Model 1967-1974, July 1978, and Association of Bay Area Governments, A 1980 Hybrid Input-Output Model for the San Francisco Bay Region, April 1984. A multiplier of 1.55 was used for construction.

/2/ Hans Wachsmuth, Jr., Vice President Equal Opportunity Officer, Williams & Burrows, Inc., letter, December 4, 1980.

/3/ Gary Hoover, Property Manager, OB 1 and OB 2, telephone conversation, July 12, 1984.

/4/ This conclusion is similar to data contained in 466 Bush Street Final EIR, EE 81.175E, certified August 20, 1982, pp. 41-42.

/5/ California Employment Development Department, "California Labor Market Bulletin, Statistical Supplement," July, 1984.

/6/ The median income of employees at the San Francisco Hilton Hotel was \$11,200 in 1979. See Tower No. 2 San Francisco Hilton Hotel Final EIR, EE 79.257, SCH No. 80093004, certified January 29, 1981. Inflating the 1979 income to June 1984 with the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) results in an annual income of \$16,400.

/7/ San Francisco Department of City Planning, Downtown Plan EIR, certified October 18, 1984.

/8/ Existing Peninsula office space and rental rates from "The Commercial Real Estate Market in The San Francisco Bay Area 1983" Coldwell Banker, December 1982. The total square footage of office developments proposed and under construction is summarized in Appendix H, Table H-3, p. A-43.

/9/ Department of City Planning memorandum to the City Planning Commission, "South of Market Interim Controls," January 26, 1982.

/10/ San Francisco Convention and Visitors Bureau, "San Francisco Bristles with Hotel Blueprints," November, 1981.

/11/ Dale Hess, General Manager, San Francisco Convention and Visitors Bureau, telephone conversation, November 27, 1981. About 14,000 hotel rooms in the City cost \$60 or more per night. Percent calculation based on 4,297 additional rooms by 1985 (see footnote /11/), all costing at least \$60 per night.

/12/ John G. Steen, Executive Director, San Mateo County Convention and Visitors Bureau, telephone conversation, July 20, 1984. (The numbers of proposed hotel rooms are subject to rapid change).

/13/ Survey of San Francisco Visitors - 1983 Summary, Economics Research Associates, San Francisco, 1984.

/14/ A copy of this survey questionnaire is contained in Appendix D, Figure D-1, p. A-24. The survey results are available for review at the Office of Environmental Review, 450 McAllister St., 5th Floor, San Francisco.

/15/ The San Francisco Office/Housing Production Program, January, 1982, (1,150,000 sq. ft. divided by 250 sq. ft./ employee) x 40% live in San Francisco divided by 1.8 workers per household = 1,022 households).

/16/ Questor Associates, Feasibility of Performing a Housing Affordability Analysis, June 15, 1982.

/17/ Mills-Carneghi Inc., "Executive Park Marketing Study", August 22, 1980.

/18/ Glenda Skiffer, San Francisco Department of City Planning, telephone conversation, July 13, 1984.

/19/ Department of City Planning Memorandum, "Low and Moderate Income Housing and the Condominium", November 12, 1981.

/20/ San Francisco Department of City Planning, Second Street Square Final EIR, 82.591E, certified January 12, 1984.

/21/ Total payroll calculations as follows: (for source of number of employees, see Table 11, p. 141)

office:	=	4,180 employees x \$25,000 = \$104,500,000
non-office:	=	450 employees x \$15,100 = \$6,795,000
total payroll	=	\$111,295,000

/22/ San Francisco Ordinances 275-70 and 245-68 exempt banks, insurance companies, and owners of businesses with tax liabilities less than \$2,500 from paying business taxes. Hence 15% of projected employees were excluded from calculation of payroll tax.

/23/ San Francisco Planning and Urban Renewal (now Research) Association (SPUR), Impact of Intensive High Rise Development in San Francisco, Detailed Findings, June 1975. Data in this report indicate that the ratio of taxable expenditures to income for office workers was 0.0439.

/24/ Based on information in San Francisco Department of City Planning, 222 Kearny Street Final EIR (81.687E), certified July 28, 1983.

/25/ Based on the average break-even occupancy rate.

/26/ This deficit-per-ride figure is based upon information provided in: Touche Ross & Co., Transit Impact Development Fee Cost Study, Fiscal Year 1981-82, July 1983, Corrected September 9, 1983, and consultation with Bruce Bernhard, Chief Accountant, San Francisco Municipal Railway, telephone conversation, October 11, 1984. The calculation of the peak period marginal deficit (additional cost per ride minus additional revenue per ride) was done by ESA. The deficit due to the project would be: 444,000 rides per year x \$0.50 deficit = \$222,000. The cost deficit estimate is based on the assumption that essentially all vehicles are operating at capacity during peak periods and additional riders would require new vehicle trips. It was assumed that during off-peak periods, all vehicles operate with excess capacity, resulting in an average off-peak marginal cost of zero. These cost estimates are appropriate for project costs to Muni of a single office building. Assessments of costs that would result from cumulative development require the inclusion of additional cost factors and may be best projected using average cost data. Muni does not have data that would enable it to estimate the average cost per passenger trip. It is reasonable to conclude that average costs would be significantly higher than marginal costs.

/27/ Based on a projected 1983-84 budget of \$1.855 billion and a 1980 population of 678,974.

/28/ San Francisco Department of City Planning, Downtown Plan EIR, certified October 18, 1984, Section IV.D and Appendix I, pp. I.8 to I.30.

/29/ San Francisco Department of City Planning, Downtown Plan EIR, certified October 18, 1984, p. IV.D.67.

/30/ "The San Francisco Office/Housing Production Program," August 19, 1982.

/31/ Report of the Citizens' Housing Task Force, San Francisco, July 29, 1982 and Berkeley Planning Associates, Displacement in San Francisco, September 2, 1980.

L. GROWTH INDUCEMENT

Project implementation would add a total of 1.85 million sq. ft. of floor area at the Executive Park site, including 1.15 million sq. ft. of office space, 45,000 sq. ft. of retail/restaurant space, 234,000 sq. ft. of hotel/meeting space (350 rooms), and 425,000 sq. ft. of residential space (600 units). The proposed height and bulk district reclassifications (discussed in Chapter V, Environmental Impacts, Section A, p. 79) would not increase the maximum development potential on the site because less square footage would be allowed under the applicable FAR, which is 3.6:1 within the project area, than would be permitted under the proposed height and bulk reclassifications.

Utilities would have to be extended to the project site, but these extensions would not increase the capacity for serving the project area or nearby vacant developable sites. Future expansion of Muni and SamTrans service to the site, and proposed street improvement described in VI. Mitigation Measures, pp. 170-171, could facilitate additional growth and expansion of commercial and residential development in the project vicinity, and in Brisbane. Muni had identified the Bayshore Corridor as a target area for growth and long-range planning (1990-2000) of transit service. Proposed developments such as Executive Park are earmarked as developments that would require expanded transit service.

The project would provide employment opportunities for about 4,630 people and would accommodate about 1,028 residents. Including that from existing OB 1 and OB 2 and approved OB 3 and OB 4, total permanent on-site employment would be about 6,440 jobs. This intensification of on-site land use and population may have growth-inducing effects on the area surrounding the site. The extent of this impact would be modified by the physical separation of the site from residential areas, and because the site is bounded on

the east and south by public open space and Candlestick Park Stadium. Increased disposable income on the site would have spillover effects in the surrounding neighborhoods. Retail stores and restaurants in this area, particularly along Bayshore Blvd., Leland Ave., San Bruno Ave., and Third St. may receive increased sales because of purchases by project office workers, permanent residents, and hotel guests. This demand stimulus may create incentive for additional retail stores and restaurants to open in the project vicinity.

The project could have growth-inducing effects in the industrial area southwest of the site along the Brisbane - San Francisco border and along the Bayshore Corridor. Some parcels in this area are under-used or vacant. If the project is built and occupied, developers could perceive this area to be appropriate for land uses similar to the project, primarily office space. This perception may have already begun, as evidenced by the proposed office development on the site and in Brisbane. As discussed in Section IV, Land Use, p. 38, Southern Pacific and the City of Brisbane anticipate the development of an industrial park as well as office space in the project vicinity. If the project's office space achieved a high occupancy rate, additional office development in this area could become more attractive than industrial development. The area east of Candlestick Park Stadium is under the jurisdiction of the State and is proposed for the Candlestick Point State Recreation Area and would not be subject to future development.

The potential stimulus to office development near the site resulting from the project would be moderated to the extent that the supply of office space in San Francisco and the Peninsula exceeds the demand for office space over the next decade. Such an oversupply could occur if demand growth for office space slowed or supply growth increased.

Many project workers would desire to live in San Francisco. Employment growth would not correspond directly to increases in demand for housing and City services to residents, because some new jobs would be held by individuals who already live and work in the City, or who live in the City but who previously either did not work or worked outside the City, or by those who would live in surrounding communities and would not desire to move to San Francisco. To the extent that the project increases the demand for housing in the City, new San Francisco residents would increase demand for commercial, social and municipal services. The increased demand for housing would also have a tendency to

increase City residential rents, and housing sales prices. Its influence on future housing costs cannot be stated conclusively because housing prices are affected by a variety of factors, including household size, construction costs, land values, and interest rates.

Demand for housing in adjacent residential neighborhoods may be generated by the increase in on-site employment. Housing in the area could be attractive to project employees because of its proximity to the project and its relative affordability. The Bayview Hunters Point neighborhood is topographically separated from the site by Bayview Hill, and the Little Hollywood and Visitacion Valley neighborhoods are separated from the project by US 101, thereby moderating direct growth-inducing effects. While many factors affect land values and displacement, the possibility exists that, as a result of the project development, property values in these neighborhoods could increase and existing occupants could be displaced. These potential growth factors, however, would be limited because the surrounding neighborhoods are predominantly owner-occupied by long-time residents./1/

NOTE - Growth Inducement

/1/ Based on telephone conversations with the following Real Estate Brokers: Dick Johnson, Red Carpet Realty; Robert Goodin, Goodin Realty; and Theresa Johnson, Goodin Realty, all on April 11, 1983.

M. COMMUNITY PARTICIPATION

The following section is not required by the California Environmental Quality Act (CEQA). It is included here for informational purposes.

COMMUNITY INVOLVEMENT

When Campeau Corporation California purchased the Executive Park site in December 1979, a representative of the firm began meeting with the Executive Park Advisory Committee. This Committee consists of six representatives from the Bayview Hunters Point area, three from Little Hollywood, and three from Visitacion Valley. The Advisory Committee had been formed in 1975 as part of the planning for the 1978 Yerby Development Plan. Campeau states that from December, 1979 through June, 1984, it has had ongoing meetings with the full Advisory Committee and, on separate occasions, with individual members of the Committee. The agendas of the meetings

covered a wide range of topics concerning the Executive Park operation, construction plans, employment possibilities, and the proposed Development Plan Amendment.

Campeau reports that it has presented the proposal to the Advisory Committee, seeking its input, since the beginning of the planning process for the proposed Development Plan Amendment. The Advisory Committee has remained involved throughout the planning process, and several aspects of the currently proposed plan reflect the Committee's input, including provisions for discouraging use of Blanken Ave. by project traffic, and an increased commitment to implement the Transportation System Management (TSM) Plan (see p. 168 and p. 169).

In the spring of 1983 the project sponsor retained three consultants/planners, one of whom is an expert in traffic/transportation issues, to work with individuals and organizations in addition to the Advisory Committee. According to Campeau, these consultants have been meeting with individuals and organizations throughout the community, presenting proposed plans and asking for ideas regarding the proposed development plan changes. Organizations include the Visitacion Valley Improvement Association, Clean Water Program, Little Hollywood Board of Directors, Shafter Avenue Community Club, New Bayview Committee, Little Hollywood Improvement Association, Bayview Hunters Point Coordinating Council, Bayview Merchants' Association, Bayview Hunters Point Joint Housing Committee, and Friends of Candlestick Park. As of June, 1984, Campeau reports the three consultants, along with other company representatives, have met with over 40 key individuals in the three communities, and have attended over 50 regularly scheduled community meetings. Campeau reports that at these meetings, it has presented the proposed Development Plan Amendment, requested input from the community organizations, and advised the organizations of the status of Development Plan approval. Written materials on the project have been distributed at over twenty public meetings, according to Campeau. Campeau states that by participating in community events, such as the Candlestick State Park Recreation Area dedication and the Little Hollywood Park dedication, it has distributed over 500 brochures to community residents on the proposed Development Plan and has requested residents' comments.

COMMUNITY CONCERNS

According to Campeau, the major areas of concern and interest expressed by community residents are traffic, particularly the combined effects of Candlestick Park Stadium traffic and project traffic; and increased employment opportunities, both construction and permanent jobs. Specific concerns and interests expressed by neighborhood residents are as follows:

Bayview Hunters Point. Campeau states that, as with the other neighborhoods, residents of Bayview Hunters Point do not want increased project traffic in their neighborhood, especially if it is compounded with traffic from Candlestick Park. The provision of job opportunities for residents is of utmost interest to Bayview Hunters Point residents (see Section V, Impacts, pp. 140-142). These residents believe that employment priorities, at the project, should be given to neighborhood residents for both construction and permanent jobs. The project sponsor has given and will continue to give priority to neighborhood residents for employment (see Section V, Impacts, pp. 140-142). The type of housing that would be built is another topic of concern. Some residents feel that moderate-priced housing should be provided at the site while others feel that only market-rate housing should be provided.

Little Hollywood. Campeau indicates that residents of the Little Hollywood neighborhood are concerned primarily with the amount of additional traffic and construction truck trips, in their neighborhood, that would be generated by the project, particularly on Blanken Ave. The sponsor has proposed a mitigation program that would minimize the increase in traffic on Blanken Ave. (see Section VI, p. 167).

Transportation was a primary concern of these residents, particularly project-generated traffic in conjunction with added traffic during events at Candlestick Park Stadium. Additionally, Little Hollywood residents believe that employment opportunities generated by the project should be offered to residents of the neighborhood. The issues of density, scale and market value of housing proposed on the site have been raised by Little Hollywood residents. Residents believe that quality, market-rate housing should be constructed and that no low- or moderate-income housing should be built on the site.

Visitacion Valley. Campeau believes that the primary interests of residents of the Visitacion Valley neighborhood are those of employment opportunities, and traffic impacts of the project on Visitacion Valley.

As with the previous 1983 Draft EIR, public hearings will be held by the City Planning Commission on the adequacy and accuracy of this Draft EIR, and on the merits of the proposed 1984 Development Plan Amendment. Neighborhood residents and others will have an opportunity to comment on the new 1984 Development Plan Amendment at that time.

VI. MITIGATION MEASURES WHICH WOULD MINIMIZE THE POTENTIAL IMPACTS OF THE PROJECT

Several measures have been identified in this EIR which would reduce or eliminate potential environmental impacts of the proposed project. In addition, many of the measures previously identified in the the 1976 Final EIR or required by the City Planning Commission as conditions for development of the Executive Park site (Resolution Nos. 7547 and 9089) would remain applicable for the project.

Some of the measures required by Resolution Nos. 7547 and 9089 have been already implemented during development of OB 1 and OB 2; those measures are included in the project description and the description of setting conditions. Measures which remain applicable, but have not yet been implemented, are discussed below. Required measures which are no longer applicable because of changes in City policies and project design have not been included. Specifically, mitigation measures listed in this chapter include:

- New measures identified in this EIR and the Initial Study to reduce potential impacts of the proposed project;
- Applicable measures identified in the 1976 San Francisco Executive Park Final EIR (summarized and incorporated by reference); and
- Applicable measures required by the City Planning Commission during the approval process for the 1978 Yerby Development Plan and for approval of design changes in 1980 and 1981 (Resolution Nos. 7547 and 9089). These measures are summarized and incorporated by reference.

Some or all of the measures contained in this EIR for the proposed project could be required by the City Planning Commission as conditions of approval of the revised Executive Park Master Plan. Specific design mitigation measures are not included because the project is at a conceptual level of design; such measures could be identified and considered by the Department of City Planning and the City Planning Commission as part of the discretionary review and building permit process.

A. LAND USE AND ZONING

MEASURES PROPOSED AS PART OF THE PROJECT

- In accordance with the objectives of the Environmental Protection Element of the Comprehensive Plan, approximately 26 acres of the project area would remain in open space on the upper slopes of Bayview Hill to provide continuous open space with Bayview Park.
- Hillside trails would be provided as part of the project. Picnic and scenic view areas would be provided at various locations along the trails (refer also to the measures on p. 181).
- Landscaping and trails would be installed east of Executive Park Boulevard East to provide a public connection between Bayview Hill Park and Candlestick Point State Recreation Area.

APPLICABLE MEASURES REQUIRED BY RESOLUTION NO. 9089

- The sponsor would build a permanent hiking trail which would link the public open spaces in the Executive Park development with Bayview Park, and would be open for public use during daylight hours. This measure would be implemented when the hillside portions of the site are developed. The sponsor has included hiking trails in the project that would comply with this requirement.
- The sponsor would (subject to State approval) participate in the development of the Candlestick Point Recreation Area to assure that the portion of the State Park property that links with the Executive Park development across Harney Way to the southeast is improved. Campeau Corporation California is currently working with the State Department of Parks and Recreation to develop the portion of the State park south of the site between US 101 and Jamestown Ave. Ext./1/ Preliminary plans for the park, which were prepared by the sponsor, have been reviewed by the Friends of Candlestick Point State Recreation Area.

NOTE - Land Use and Zoning

/1/ Jay Mancini, Director of Commercial Development, and Craig Scheidt, Assistant Project Manager, Campeau Corporation, California, June 1, 1982, letter report to Peter Dangermond, Director of California Department of Parks and Recreation; and Jeanette

Dinwiddie, Program Manager, Campeau Corporation California, letter, June 12, 1984. The letter report is on file and available and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor.

B. URBAN DESIGN AND VISUAL QUALITY

MEASURES PROPOSED AS PART OF THE PROJECT

- Proposed structures would be stepped back into the hillside to reduce their bulk and maximize views of the upper slopes of Bayview Hill. This would partially mitigate the visual scale and massing of the project.
- Proposed landscaping, erosion control and hydroseeding measures (see pp. 181-182) would repair the damaged slopes of Bayview Hill and help return the Hill to a more natural condition.
- Streets and the embankment of US 101 would be landscaped.
- Structures in the western part of the site, near US 101, would be lower in height than structures on other portions of the site. Lower heights in this area would preserve view corridors to Bayview Hill and the Bay. This stepped configuration would also provide more of a transition in scale from the Little Hollywood area to the shoreline than would the 230 ft. tall structures approved under the 1978 Yerby Development Plan. See also J. Ecology, pp. 181-182 for hillside landscape measures which would mitigate visual impacts.

APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- To mitigate the effects of the marine environment in corroding the exteriors of buildings, select outdoor materials for their ability to withstand airborne salt and chemicals.
- Design buildings to control water runoff over their surfaces, particularly where corrosive contaminants caused by salt water in the air could collect.

MEASURES NOT INCLUDED IN THE PROJECT

- The project sponsor could place vined trellises on the tops of project structures and plant broadleaf trees in and around surface parking lots to mitigate impacts on views of the project from Bayview Hill.

- The project sponsor could plant trees in sufficient density so that, when mature, they would obscure the existing benches in the hillside.

C. SHADOWS

None required.

D. WIND

APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- Provide landscaped windbreaks with berms, trees, and other vegetation along pathways, plazas, and waiting areas.
- Locate building entrances on the leeward sides of buildings and install double or revolving doors to minimize wind penetration. The architect has designed buildings so that the main entrances and pedestrian spines are oriented to provide maximum sunlight for pedestrian comfort under wind conditions.

MEASURES NOT INCLUDED IN THE PROJECT

- Some of the mitigation measures identified for visual impacts (see Section B) would also mitigate wind impacts; these include vined trellises on the tops of project structures and trees planted in and around surface parking lots.

E. TRANSPORTATION, CIRCULATION AND PARKING

By encouraging transit use, carpools, and transit expansion, the following mitigation measures would meet the general intent of the objectives of the Urban Strategy Program in California./1/

MEASURES PROPOSED AS PART OF THE PROJECT

- The sponsor would provide the recommended off-street loading and service space contained in Exhibit A of City Planning Commission Resolution 9286. That resolution requires more off-street loading than the existing City Planning Code.

- As the project becomes fully occupied, the sponsor would work with SamTrans to provide service for on-site bus stops by SamTrans mainline express routes. The sponsor has discussed required employee usage with SamTrans and would continue to do so. In July 1981, the sponsor and SamTrans surveyed the tenants of OB 1 to determine the demand for transit service to the site (OB 1 and OB 2 were surveyed in October 1982).

On the basis of the 1981 survey and the 1982 employee survey (see Appendix D, p. A-23), SamTrans indicates that the current demand does not warrant mainline express service. The sponsor and SamTrans would re-evaluate the feasibility of providing SamTrans mainline service to the site after each phase of development.

- The development plan design would provide sufficient roadway widths and turnaround to accommodate future Muni expansion to serve the housing complex on the eastern side of the project area.
- The project sponsor would provide shuttle service to the Executive Park site from the downtown (e.g. from the Transbay Transit Terminal) and from the Bayshore CalTrain station, as required by the demand for such service by project employees. The need to continue or modify shuttle service would be reviewed annually by the project sponsor in consultation with the Department of City Planning.

APPLICABLE MEASURES REQUIRED BY RESOLUTION NOS. 7547 and 9089

- The sponsor would employ a transportation broker, whose responsibility it would be to work with building tenants and employees, the Department of City Planning, RIDES for Bay Area Commuters, Muni, SamTrans, and other agencies to prepare and implement Transportation System Management (TSM) programs for the entire Executive Park site, which would include, but not be limited to: designation of preferential parking spaces for carpools and vanpools (three or more occupants per vehicle). These spaces shall be those closest to building entrances, and the initial number of preferential parking spaces shall be based on current percentage of on-site employees who rideshare, as demonstrated by an employee survey. There would be on-site sales of BART tickets and Muni passes, with a good-faith effort to encourage employer subsidy of transit passes or other employer-provided incentives to use transit.

VI. Mitigation Measures

- Within six months after full occupancy of each building, the transportation broker shall submit to the Department of City Planning a preliminary report which outlines TSM program activities and progress to date, and which outlines a proposed long-range TSM plan for implementation as the project nears completion. Such a [long-range] plan shall include, but not be limited to, such actions as: increasing the number of preferential parking spaces for carpools and vanpools; providing direct transit service into the Executive Park site by Muni and SamTrans, as the level of employee population warrants; instituting shuttle services to the site from the BART station and the Southern Pacific [CalTrain] depot, as employee population warrants; instituting flex-time or alternative work schedules by various tenants to minimize peak-hour traffic congestion related to the site.

MEASURES THAT COULD BE IMPLEMENTED BY PUBLIC AGENCIES

The following mitigation measures would require action by public agencies. No public funds have been allocated to implement them. The measures might be implemented earlier if the project sponsor agreed to pay for them. The project sponsor has not committed to pay for any of the measures in this section.

- The City Planning Commission could implement a procedure that would make building permit approval contingent upon performance of agreed-upon mitigation measures and the development of other measures found necessary at that time.
- To better assess the need for transportation improvement, and to establish a program of implementation, a multi-jurisdictional study of travel impacts in the general vicinity of the project could be prepared. Participating agencies would most likely include the cities of San Francisco, Brisbane, and South San Francisco; CalTrans; and SamTrans. The study would identify necessary improvements for the transportation system in the northern end of the US 101 corridor. The study would develop mechanisms through which each participating agency could require specific contributions of individual project sponsors toward completion of the improvements.

- The mass transit system plan and the incremental improvement plan for the Peninsula Corridor to be developed under Senate Concurrent Resolution No. 74 (SCR #74) could be implemented to mitigate future freeway congestion. SCR #74 was enacted by the State Legislature on June 5, 1984. It requests that the Metropolitan Transportation Commission (MTC), in cooperation with the Department of Transportation (CalTrans), transit operators and local governments in the San Jose - San Francisco Corridor, develop a mass transit system plan and incremental improvement plan for the corridor. These plans are to be completed and submitted to the Legislature no later than March 1, 1985. This could mitigate cumulative impacts.

- Muni is currently considering extension of the No. 29 Muni bus line to the Executive Park Site. If this extension occurs, vehicular traffic generated by the project might be decreased. The bus could carry proposed project employees directly to the Leland Ave. shopping area, to CalTrain Bayshore Station and to the Balboa Park BART station. A restricted (limited to Muni vehicles) railroad grade crossing and street extension would be required at Sunnydale Ave.

- The City (Muni) could provide a light-rail line on or near Third St. to serve the project and other anticipated development in the southeast section of the City. The City has recently commissioned a study of transit demand of the Third St. corridor. The study is the first step toward a 10 to 20 year program designed to improve transit service in the corridor (Chi-Hsin Shao, Transportation Planner, Department of City Planning, telephone conversation, December 10, 1984). The study will recommend improvements, which could include a light-rail line.

- SamTrans could provide transit service to bus pads at the Alana Way and Harney Way interchanges that could be installed by CalTrans. There would be a question about pedestrian safety at the Harney Way interchange, as persons using the bus pads would have to make an unsignalized crossing of one of the ramp roadways. This condition would not occur at the Alana Way interchange, as the intersection of Alana Way and Beatty Ave. would be signalized in the future (see measure below).

- To achieve the "with improvements" Levels of Service shown in Table 6, p. 104, construction of several roadway improvements would be necessary. All street

improvements on Harney Way located within the Caltrans right-of-way would be subject to review and approval by Caltrans. Because the project and local cumulative development in Brisbane would be built over a ten-year period, the roadway improvements would not need to be made at once. Rather, staged improvements following periodic review of traffic conditions would be appropriate. A staged implementation program to construct roadway improvements (including roadway widths) is shown in Table 16, below.

TABLE 16: ROADWAY IMPROVEMENTS (APPROACHES TO INTERSECTION)

Intersection	South Leg		East Leg		North Leg		West Leg	
	Lanes/a/	Width/b/	Lanes	Width	Lanes	Width	Lanes	Width
Harney Way & Executive Park Blvd. West Extension (SFDPW, CalTrans)/c/	4	44	4	44	3M	48	N/A	N/A
Harney Way / Alana Way & Thomas Mellon Dr. (SFDPW)	4	44	6	66	4	54	4	48
Alana Way & Executive Park Blvd. West (SFDPW)	4	48	5	60 /d/	5	60	5	60
Beatty Ave. & Alana Way (Brisbane) / SB 101 ramps (CalTrans)	N/A	N/A	5	70 /e/	5	70	4M	70
Harney Way & Executive Park Blvd. East (SFDPW)	N/A	N/A	5	55	4	44	5	55
Executive Park Blvd. West & Blanken Ave. (SFDPW)	4	48	2	24 /f/	4	44	2	24 /f/

/a/ Lanes required for two-way travel; M denotes that a median is included in the width measurement.

/b/ Curb-to-curb width for two-way travel.

/c/ Agency or agencies (in parentheses) within whose jurisdiction the intersection is located. SFDPW is the San Francisco Department of Public Works.

/d/ Requires widening the freeway underpass approximately 12 ft. (approximate cost of \$325,000).

/e/ Requires widening the southbound off-ramp to three lanes from one lane and restriping the southbound on-ramp.

/f/ Represents narrowing of existing streets.

SOURCE: DKS Associates, and Environmental Science Associates

- Signalization should be provided when warranted by traffic volume increases at the intersections of Alana Way at Executive Park Blvd. West, Alana Way at Harney Way (Department of Public Works), and Alana Way at Beatty Ave. / Southbound US 101 ramps (Brisbane / CalTrans). Cost of installation would be approximately \$300,000.
- To discourage use of Blanken Ave. in Little Hollywood by workers, residents, and visitors of the project, Executive Park Blvd. North could be rebuilt as a pedestrian / transit street (with a narrow, two-lane travel way./2/ The intersection of Blanken Ave. and Executive Park Blvd. West could be designed as two offset "Ts". This measure would be under the jurisdiction of the Department of Public Works.
- The project could result in overflow parking in the adjacent Little Hollywood neighborhood. This impact could be alleviated by the institution of a preferential parking program in Little Hollywood. Implementation of a preferential parking program is governed by city ordinance. At present, the ordinance requires that a minimum of 50% of neighborhood residents petition for the preferential parking program and that the Department of Public Works conduct a survey of parking conditions to determine the need for the preferential parking program. The Little Hollywood area meets the minimum requirement of one mile of block face (for parking); thus, should the other requirements of the ordinance be met, a preferential parking program could be implemented in Little Hollywood./3/
- To reduce the impact of project traffic as it would enter US 101, CalTrans could install and maintain ramp-metering signals with by-pass lanes for high-occupancy vehicles (carpools, vanpools) and transit vehicles.
- The San Mateo County Transit District (SamTrans) could amend the County Transit plan to recommend SamTrans bus connections to the proposed project.
- The City could implement the transportation improvements described in Section V.E, Mitigation of the Downtown Plan EIR. The Downtown Plan was approved by the City Planning Commission on December 6, 1984. Board of Supervisors approval of the Plan is pending. Some of the Implementing Actions need approval by other decisionmakers, as described in Section V.E of the Downtown Plan EIR. These would reduce cumulative impacts.

- On days on which events are scheduled at Candlestick Park, the San Francisco Police Department could close two of the three (or all three) access points to Executive Park (Executive Park Blvd. East and Thomas Mellon Drive at Harney Way) while leaving the access at Executive Park Blvd. West and Alana Way open. This measure is designed to reduce the effect of increased Candlestick Park traffic on Blanken Ave. that might result from the additional streets provided by the project. Implementation of this measure may require police control at Blanken Ave.

MEASURES NOT INCLUDED IN THE PROJECT

- The sponsor could provide lease-subsidized transit passes for project employees. Muni has endorsed this measure. The project sponsor has rejected subsidizing transit passes through tenant leases in the belief that the increase in leasing cost resulting from implementation of this practice at Executive Park would adversely affect the project's feasibility. Moreover, the sponsor believes that comparable office developments in the area do not follow this practice and that lease-subsidized transit passes would not provide an incentive for transit use if service is not adequate to meet employees' needs. The sponsor does not consider lease-required subsidies of transit passes an appropriate incentive, and would not consider providing them./4/
- The project sponsor could establish charges (fees) for on-site parking with a differential rate structure for ridesharing to encourage car and vanpooling and transit use. Charges would be applied to low-occupancy vehicles. Revenues from parking charges could be used to offset costs of implementing a Transportation Systems Management (TSM) program. Implementation of this measure would reduce auto use, and therefore reduce traffic impacts of the project. Muni has endorsed this measure. The sponsor could eliminate free parking or provide parking exclusively for carpools and vanpools at the Executive Park site.

The sponsor has rejected this measure for several reasons:

First, the sponsor believes that implementation of a differential rate structure would cause drivers to park in nearby neighborhoods, especially in Little Hollywood, to avoid paying parking fees. Second, parking fees would discourage potential tenants, thereby undermining the vitality and feasibility of the project. Finally, the sponsor has, and would continue to implement, a TSM plan to encourage alternatives to auto use.

The sponsor states that the Executive Park project is being developed as a suburban office complex located within the City of San Francisco. Provision of ample, free parking at the site is an integral part of the development's ability to compete with nearby San Mateo County suburban office developments which offer as much free parking per sq. ft. of floor area as Executive Park, or more. In the opinion of the sponsor, failure to provide the current and proposed levels of free parking would seriously jeopardize the feasibility of the Executive Park project.

Furthermore, eliminating parking for single-occupant automobiles could have adverse effects on the surrounding neighborhoods. If single-occupant parking were to be eliminated, drivers of single-occupant automobiles would park on streets of surrounding neighborhoods, particularly in Little Hollywood. According to the sponsor, residents of Little Hollywood indicate that they would not want a preferential parking program implemented in their neighborhood. The sponsor states that residents believe that there would be problems enforcing the program and that their guests would be inconvenienced./4/

- The project sponsor could contribute \$150,000, as requested by Muni, toward construction of a restricted at-grade crossing of the Southern Pacific Railroad mainline to be used by the rerouted 29-Sunset line.

The sponsor would consider depositing \$150,000 towards Muni capital improvements that would provide Executive Park with a direct, non-transfer route to Balboa Park BART station via the rerouted 29-Sunset line, under the following conditions:

- 1) the neighborhoods of Little Hollywood, Visitacion Valley, and Bayview Hunters Point support the proposed Muni route;
- 2) the S.F. PUC approves the Muni rerouting of the 29-Sunset line; and
- 3) the S.F. PUC receives approval for an at-grade crossing of the Southern Pacific Railroad Mainline./4/

The sponsor believes that it would not be equitable to be the sole provider of such improvements and that it is more appropriate for this measure to be funded publicly. The sponsor states that the project would provide, through revenues to the General

Fund, additional annual net revenues to Muni of approximately \$275,000 from property and other taxes if the same percentage of the General Fund goes to Muni as in the past. These revenues would offset the one-time contribution of \$150,000 for an at-grade crossing./4/

- The sponsor could provide funding for a light-rail line extended to the site via Third St. The project sponsor believes that funding of a light-rail line would be inappropriate because it would be a subsidy for general service, rather than for service directly benefitting the Executive Park project. The sponsor states that the additional annual net revenues to Muni of approximately \$275,000 from the project are an operating subsidy to transit. Further, the California Environmental Quality Act (CEQA) indicates that the City Planning Commission may implement only those measures for which it has legal authority (Public Resources Code, Section 21004)./3/
- The sponsor could make contributions to CalTrans, SamTrans and Muni to provide transit service to the Executive Park site. The project sponsor has rejected this mitigation measure for several reasons. Transit services such as CalTrain, SamTrans, and Muni provide transit service for the general public, including employees commuting to and from work. The sponsor believes it is inappropriate for it to provide on-going operating subsidies for service intended as transit services for the general population. The sponsor states that providing an operating subsidy is not appropriate for the project sponsor because such a subsidy would be for general transit service available to the general population rather than a service specifically provided to the Executive Park project. The sponsor states the project would provide additional annual net revenues to Muni of approximately \$275,000 from property and other taxes, which in effect, would already be an operating subsidy to transit service./4/
- The project sponsor could fund (including the posting of securities) the construction of street and ramp improvements in the project area (see pp. 170-171 and Table 16, p. 171 for a description of these improvements). Alternatively, as other proposed developments occur in the project vicinity, the project sponsor could participate in a joint funding mechanism with known and future developers and public agencies that would benefit from the roadway and ramp improvements. According to the project sponsor, it is uncertain if all cumulative development proposed in Brisbane would be

built. Therefore, it is not feasible at this time to fully assess the ultimate roadway improvements that may be needed and for the project sponsor to commit to participate in an undefined funding mechanism./5/

NOTES - Transportation, Circulation and Parking

/1/ Office of Planning and Research, State of California, An Urban Strategy for California, February 1978. This report recommends long-range planning goals and objectives for managing urban growth in California.

/2/ Although the mitigation improvements for Executive Park Blvd. North are discussed in the Project Description (Section III, p. 21) as being part of the project, the street is a dedicated public thoroughfare. Thus, the Department of Public Works would have to approve the proposed changes before the street could be modified as described in the Project Description.

/3/ Ordinance No. 312-76, San Francisco Residential Permit Parking Program, adopted August 1976.

/4/ Jay Mancini, former Director of Commercial Development, Campeau Corporation California, and Timothy Tosta, Legal Counsel for the San Francisco Executive Park project, letter, November 14, 1983.

/5/ Jay Mancini, former Director of Commercial Development, Campeau Corporation California, and Timothy Tosta, Legal Counsel for the San Francisco Executive Park project, telephone conversations, July 14, 1983.

F. AIR QUALITY

MEASURES PROPOSED AS PART OF THE PROJECT

- Some of the mitigation measures identified for traffic impacts (see section D) would also mitigate air quality impacts. These include increasing roadway capacity (where feasible and cost effective), reducing vehicular traffic through increased ridesharing (carpool, vanpool, and transit), and implementing flexible and/or staggered work hours, all of which would reduce local and regional emissions of all pollutants.
- The project sponsor would require the construction contractor to sprinkle unpaved construction areas with water at least twice per day to reduce dust emissions. The project sponsor would require the construction contractor to maintain and operate construction equipment so as to minimize exhaust, dust, and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and to implement specific maintenance programs (to reduce emissions) for equipment that would be in constant use for much of a construction period.

VI. Mitigation Measures

- Some of the mitigation measures identified for energy impacts (see p. 178), would also mitigate air quality impacts. Reducing natural gas combustion and electricity generation would, in turn, reduce local and regional emissions of air pollutants.

MEASURES NOT INCLUDED AS PART OF THE PROJECT

- Provide between 422 and 470 housing units, in addition to the 600 units proposed as part of the project (see p. 183), to also mitigate air quality impacts. Improving the balance of jobs and housing in San Francisco would reduce long-distance home-to-work travel, and would reduce local and regional emissions of all pollutants. This measure is not under consideration by the project sponsor.
- The project sponsor could require the construction contractor to cover stockpiles of soil, sand, and other such material; cover trucks hauling debris, soil, sand, or other such material; and sweep streets surrounding demolition and construction sites at least once per day to reduce dust emissions.

G. NOISE

MEASURES PROPOSED AS PART OF THE PROJECT

- The residential units closest to Harney Way would be designed so that bedrooms do not front Harney Way. This measure would reduce the impact of noise on these units from nighttime traffic resulting from Candlestick Park Stadium events.
- The proposed 600 housing units would be located on the far eastern portion of the project area (Area 3), the area farthest from US 101. This would reduce the potential noise impacts of US 101 on project residents. Title 24 noise insulation measures would be required for all units.

APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- Stationary noise sources (rooftop or exterior air conditioning units, fans, etc.) within the proposed project would be screened or enclosed to minimize effects on nearby

project area sidewalks, the Town Center plaza, and the Candlestick Point State Recreation Area.

- Open-space areas on the developed portion of the site (plazas and terraces) would be screened from traffic-related noise by dense building materials, berms, or other physical or landscape features capable of deflecting or absorbing sound. Landscaping would provide a maximum noise reduction of about three dBA.

H. ENERGY

MEASURES PROPOSED AS PART OF THE PROJECT

The following are general measures which would be incorporated into the final design of each proposed structure.

- All hot water heaters would be located as close as possible to the point(s) of use and all hot water pipes would be insulated.
- Interior and exterior lighting of offices would be primarily by energy-efficient light sources such as fluorescent fixtures.
- Multiple trash bins would be installed in place of single units to encourage source separation of recyclable material.
- Photocell-activated switches would be used to activate all exterior lighting and all parking area lighting.

MEASURES NOT INCLUDED AS PART OF THE PROJECT

- The sponsor could be required to prepare a detailed report for the Department of City Planning (Energy Group). The report would demonstrate energy conservation measures that would be included in the project and those measures which, because of design constraints or economic considerations, would not be included. See Appendix F, p. A-33 for conservation features that could be considered in this report.

I. GEOLOGY, SEISMICITY AND HYDROLOGY

MEASURES PROPOSED AS PART OF THE PROJECT

- To reduce the potential for damage from loosely embedded boulders, such boulders would be removed from the face of the final excavated slope. This would reduce the effects of potential differential weathering, which could cause potentially unstable boulders to roll downslope as a result of undercutting or earthquake groundshaking.
- Existing fill and any soft, weak or expansive materials encountered within the building sites would be replaced with properly compacted fill.
- In areas to be filled, the surface would be cleared of trash, organic material and debris. The upper two to three inches of soil would be stripped to remove grass and other vegetation. This material would be stockpiled for landscaping uses later.
- If seepage is encountered in fill areas, subdrains would be installed to aid in draining the areas to reduce long-term maintenance problems, as was done for OB 3./1/
- To mitigate potential slope instability caused by seepage, horizontal drain pipes (hydraugers) or gravel subsurface drains would be installed to divert groundwater from the surface of weak, sheared rocks, as required.
- Any future slumps or slides during project development would be immediately cleaned up to prevent debris from blocking surface drainage and directing runoff off benches towards the slope, resulting in erosion.
- To reduce surface erosion and improve stability, the cut slopes would be planted as soon as possible after excavation. Predominantly native California plants, requiring a minimal amount of water, would be used to reduce the potential for erosion and saturation of the hillside slopes (see Appendix G, Ecology, p. A-37 for a list of plants that would adapt well to the hillside). Hillside planting and hydroseeding of slopes would be performed soon after excavation and prior to the November-April rainy season.

VI. Mitigation Measures

- To reduce erosion, all benches (or the toe of each slope) would be sloped to drain away from the slope face and concrete, asphalt- or gunite-lined V-ditches would be provided along the uphill side of the benches to collect and divert surface water away from the slopes. Runoff from individual benches would be directed into culverts that discharge into storm drains or suitable discharge points. Landscaping could prevent views of the ditches.

APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- The final design of the grading scheme would include a gradual cut. The hillside would be excavated to no steeper than 1.5:1 slope (horizontal:vertical), with benches about 30-40 ft. apart vertically to improve overall stability, permit equipment access for maintenance and facilitate landscaping. The average slope of the project would be 2.25:1 as compared to the average of 2:1 specified in Resolution No. 7547.
- Planned grading would remove most of the small slumps; all debris would be removed from existing slides and slumps; and surface draining and seepages would be redirected around the slides.
- A buffer zone would be maintained between the toes of the steeper slopes and building sites to increase slope stability and protect buildings from possible damage by slides. In other areas, retaining walls would be developed to protect buildings from possible damage by slide.
- The project sponsor and engineers would reach an agreement with the City for periodic maintenance inspection of the mutual boundaries, installation of an interceptor drainage system adjacent to Bayview Park, and continuous maintenance of the upper slopes of the project adjoining the park. The cost to the City would be determined by this negotiation.
- Detailed foundation investigations and engineering analysis would be conducted for each site to insure use of proper techniques to minimize the adverse effects of consolidation of foundation material such as uneven settling of buildings, and to provide resistance to seismic stress.

NOTE - Geology, Seismicity and Hydrology

/1/ Harding-Lawson Associates, 1981, Soil Investigation, Office Building 3, San Francisco Executive Park.

J. ECOLOGY

MEASURES INCLUDED AS PART OF THE PROJECT

- The sponsor would develop a landscaping program with the project architects, to be approved by Department of City Planning staff as part of the review of each building permit application. Where appropriate, developed and undeveloped portions of the site would be landscaped with native plants to ensure increased potential for plant survival (also required by Resolution No. 7547), to maximize the habitat value of this vegetation for native wildlife, and to discourage expansion of populations of urban-adapted wildlife pests. Botanical markers would be installed along the hillside trails to identify native plant species. The sponsor has planted the following native vegetation on the upper slopes of the project area: Monterey pine, ceanothus, pinon pine, and hollyleaf cherry.
- Group plantings of shrubs and trees would be located at intervals on the upper slopes, generally above the 120-ft. contour, to provide shelter for birds and small terrestrial wildlife (see Appendix G, p. A-37, for sponsor's preliminary landscaping plan). Use of predominantly native species would also reduce the need for fertilizer, pesticides, and excessive watering, all of which could affect marine life exposed to site runoff.
- On portions of the site generally above the 120 ft. elevation, landscaping and grading would be developed so as to encourage surface ponding accessible to terrestrial wildlife; this would replace existing surface ponds that would be eliminated by project development.
- To mitigate the effects of poor soil fertility, difficult topography and poor irrigation on hillside planting, the following measures would be included in the project. These measures would be implemented mostly during Phases One - Four.
 - Poor soil fertility would be compensated for by planting species (primarily native California) that would adapt to project area soil conditions,

VI. Mitigation Measures

providing an adequately-sized planting pit, properly enriching existing soil, and applying fertilizers on a regular basis.

- Excavation on the hillside has resulted in steep slopes. Old exposed slopes, particularly those over 1:1 or greater, would be planted with cascading shrubs along the outside of the benches to cover the exposed slopes.
- The landscaping plan would consider the feasibility and compatibility of installing an overhead irrigation system, which would apply fertilizer and water to the hillside on a regular basis. If installed, the irrigation system would be operated to minimize erosion.
- The hiking trails included in the project would be located to provide access to Bayview Park from the site and to avoid the sensitive habitat near the northwestern corner of the site which could contain host plants for rare and endangered butterfly species.

APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- All future phases in and around all structures, parking lots, entrances and roads, and cut and fill slopes would be planted with trees, shrubs, vines, groundcovers and grasses and would be watered with irrigation systems.
- Plantings of trees and shrubs would be added adjacent to existing highway plantings on the western boundary of the site.
- The plants for steep-sloped areas would be selected for drought-resistance to minimize demand for irrigation. Design and maintenance plans would be developed to insure, as much as possible, the survival of plants on the project site.

APPLICABLE MEASURES REQUIRED BY RESOLUTION NO. 7547

- Develop a landscaping plan for the site which shall include but not be limited to: complete coverage of visible, stepped hillside with trees, shrubs and ground cover; adequate landscaping to screen surface parking areas from vantage points both inside and outside the project area; a regular schedule for maintaining all landscaped area; and legally binding bond or other security guarantee to cover the cost for maintenance of landscaping.

MEASURES NOT INCLUDED IN THE PROJECT

- The open space areas of the site could be landscaped solely with native plants. The sponsor has rejected this measure because the non-native plants recommended for the developed portions of the site are in common use in the project vicinity, are suitable for landscaping purposes, and have desirable aesthetic qualities.
- The landscaping plan could include plants (as available) which provide habitat for the Mission blue, San Bruno elfin, and Callippe Silverspot butterflies. The landscaping plan could also include rare and endangered plant species (coast rock cress and Diablo helianthella), as available, that are extirpated from the project area.
- The connection of on-site trails to Bayview Park could be coordinated with the San Francisco Park and Recreation Department to avoid access from the project site to the sensitive habitat area near the northwestern corner of the site which could contain host plants for rare and endangered butterfly species.

K. EMPLOYMENT, HOUSING AND FISCAL FACTORS

MEASURES PROPOSED AS PART OF THE PROJECT

- The project sponsor proposes to construct 600 residential units which would consist of 472 one-bedroom units at 650 sq. ft./unit and 128 two-bedroom units at 900 sq. ft./unit. These units would entitle the project sponsor to up to 728 units/credits under the currently applicable OHPP Interim Guidelines. Construction of these units would partially mitigate total housing demand generated by the project of between 1,022 and 1,070 units (see p. 145), thus providing housing near major employment centers. As housing would be built after some of the offices are constructed, housing demand attributable to the project would be met during Phases Two through Five (1987-1993) of development.

Prior to implementation of the Interim Guidelines of the City's Office Housing Production Program (OHPP) in January 1982, approximately 839,000 gross sq. ft. of office space at the Executive Park site was included in the 1978 Yerby Plan

(including the changes to the Plan in 1980 and 1981). The office space in the proposed Development Plan Amendment represents about 805,000 gross sq. ft. more office space than that in the Yerby Plan (1,644,000 sq. ft. minus 839,000 sq. ft.). If current OHPP Interim Guidelines were to be applied only to the increment of 805,000 sq. ft. of office space, estimated housing demand would be for 716 units. The OHPP estimate is based on the following assumptions: office use generates one job per 250 gross sq. ft. of space; 40% of office employees would choose to reside in San Francisco; and 1.8 workers would occupy each household. This City policy applies only to office use and does not include employment generated by other types of land uses. On the basis of the employee survey data from OB 1 and OB 2, housing demand attributable to the project would be 822 units (on the basis (1982 site survey) that 37% of office employees would choose to live in San Francisco and 1.45 workers would occupy each household).

MEASURES NOT INCLUDED IN THE PROJECT

- The project sponsor could build the housing in conformance with OHPP Guidelines. The proposed phasing of the housing would not conform strictly to the OHPP Interim Guidelines, as the Guidelines require that housing units be provided prior to issuance of a final certificate of occupancy for office buildings. The project, as proposed, would provide about 175,000 sq. ft. of occupied office space prior to initiation of the phased housing construction. According to the project sponsor, an analysis of housing market opportunities at the Executive Park site indicates that to be successful, marketing of housing would need to occur during the later phases of construction. Prior construction of all office and retail uses would provide a sufficient scale and mix of uses to support the housing units. The proposed commercial uses would also establish a destination image for the project that would enhance the market for housing at the site./1/ The project sponsor is studying a phasing schedule for mitigation of housing demand generated by the project which would start phasing of housing after the completion of the Yerby Plan's 839,000 sq. ft. of office space. (This amount includes the 494,000 sq. ft. of office space already approved for OB 1 - OB 4.)

- The project sponsor could provide between 422 and 470 additional housing units to meet housing demand not provided on-site resulting from the 1.15 million sq. ft. of office space in the proposed project. The sponsor has rejected this measure, as it believes that OHPP guidelines are not applicable to the entire 1.15 million sq. ft. of office space in the proposed project, and because it believes that OHPP guidelines are not directly applicable for determining San Francisco housing demand created by the proposed project. Prior to implementation of OHPP in January 1982, approximately 839,000 sq. ft. of office space had been included in the previous ("Yerby") development plan; therefore the project sponsor believes that the OHPP should be applied only to the 805,000 sq. ft. of additional office space proposed in the project (beyond that already included in the previous "Yerby" development plan). This would lead to an OHPP formula demand of 716 units. Because the survey of current employees at OB 1 and OB 2 indicates that employees who previously resided in San Francisco moved out of the City after their jobs relocated to the project site (see pp. 146-147), the sponsor believes that the percentage of San Francisco residents employed in the office portion of the project would be less than the 40% used in the OHPP formula.

NOTE - Employment, Housing, and Fiscal Factors

/1/ Tim Kelly, Keyser Marston, telephone conversation, July 15, 1983.

L. HAZARDS

MEASURES PROPOSED AS PART OF THE PROJECT

- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services (OES), to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The proposed emergency response plan of the project would be reviewed by the OES; those portions of the plan necessarily a part of building design would be implemented by building management before the Department of Public Works issues final building permits.

M. CULTURAL

MEASURES PROPOSED AS PART OF THE PROJECT

- Prior to issuance of a site permit, the project sponsor shall retain an historical archaeologist (or other qualified expert) to perform archival research and site inspection to determine the potential for discovery of cultural or historic artifacts on the site. This investigation shall include the known shell mound site in the vicinity of the project area./1/ Results of this investigation, and a plan for any further investigation that may be appropriate, shall be reported to the Environmental Review Officer (ERO).

The ERO, in consultation with the Secretary to the Landmarks Preservation Advisory Board and the archaeologist, shall determine whether the archaeologist should instruct all excavation and foundation crews on the project site of the potential for discovery of cultural or historic artifacts, and the procedures to be followed if such artifacts are uncovered.

In the event of high probability of discovery of cultural or historical artifacts, the ERO may require that an archaeologist be present during site excavation and record a daily log of observations. The ERO may also require cooperation of the project sponsor in assisting such further investigations on site as may be appropriate prior to or during project excavation even if this results in a delay in excavation activities.

Should cultural or historic artifacts be found during project excavation, the archaeologist would assess the significance of the find, and immediately report to the ERO and the Secretary of the Landmarks Preservation Advisory Board.

The ERO would then recommend specific mitigation measures, if necessary, in consultation with the State Office of Historic Preservation. Excavation or construction which might damage the discovered cultural resources would be suspended for a maximum of four weeks to permit inspection, recommendation and retrieval, if appropriate. This maximum of four weeks shall include any other time periods for which the ERO has required a delay in excavation activities.

NOTE - Cultural

/1/ San Francisco Clean Water Program, April 1982, San Francisco Bayside Historical Cultural Resource Study.

N. UTILITIES AND PUBLIC SERVICES

MEASURES PROPOSED AS PART OF THE PROJECT

- The project would provide internal security measures, such as security guards, well-lighted entries, alarm systems, and emergency communication systems, emergency power and water supply for office uses to minimize the need for police and fire services and to reduce hazards to building occupants during an earthquake or fire. See also the mitigation measure above concerning hazards.
- The project design would incorporate low-flow faucet and toilet fixtures to reduce water consumption.

**VII. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE
PROPOSED PROJECT IS IMPLEMENTED**

This chapter identifies impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the proposed project, or other mitigation measures that could be implemented, as described in Chapter VI, Mitigation Measures, pp. 164-187.

CUMULATIVE TRANSPORTATION IMPACTS ON US 101

Project traffic, combined with traffic from on-site, local, and regional cumulative development, would degrade peak-period operations on US 101 southbound to Level of Service E. The effect of these degraded Levels of Service would be to spread the peak-of-the-peak period (currently less than 15 minutes in the peak period) to a one-hour and 15 minute (75 minutes) period.

VIII. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The following chapter is required by the State EIR Guidelines for any project which would require a General Plan Amendment or rezoning (Sections 15127(a)).

The project would preempt open space use of the developed portions of the site during the life of the project. The project would contribute to cumulative traffic generation that would either reduce the current Level of Service D on US 101 southbound during the p.m. peak period to Level of Service E, or contribute incentive for long-term changes in travel modes and behavior in the San Francisco region. During the life of the project, the project would consume about 140.4 billion Btu of natural gas and 283.6 billion Btu of electricity per year. Other non-renewable resources would be consumed during construction.

Development of the site would limit the range of alternate uses of the site, including open space use and extension of continuous open space from Bayview Hill to the Candlestick Point State Recreation Area. The project would not pose any particular risk to public health and safety.

In exchange for these long-term adverse effects, the project, during its lifetime, would create employment opportunities for about 4,630 persons, add approximately 600 housing units to the City's housing stock, and increase revenues to the City from property and other taxes.

The sponsor believes that the project is justified now, rather than reserving an option for future alternatives to be developed at the site, because there is a current market for office and retail space outside of the downtown core and nearer to the airport and freeway. The sponsor also wants to proceed with developing the site under the design of the proposed Development Plan Amendment, instead of continuing to build under the Yerby Plan.

IX. ANY SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

The most irreversible impact of the project would be the consumption of energy. Construction activities would consume about 300,000 kWh of electricity, 50,000 gallons of diesel fuel and 56,000 gallons of gasoline. The project (operation plus amortized construction) would consume about 140.4 billion Btu of natural gas and 283.6 billion Btu of electricity per year. About 725,000 cubic yards of material would be excavated, permanently altering the existing topography of Bayview Hill. Proposed roadway improvements could commit future generations to expansion of commercial development in the project vicinity, particularly to the south in Brisbane. For the life of the project, there would be a loss of 24 acres of undeveloped land available for colonization and growth of native plants. Once development of the project area has occurred, the option of leaving 24 acres of the project area as open space would be lost for the life of the project. Subsequent purchase of the site for open space after development occurs would be much more costly than purchase prior to further development on the site. The appearance of the site would be altered for the life of the project.

X. ALTERNATIVES TO THE PROPOSED PROJECT

This chapter considers seven alternatives to the proposed project, five of which would reduce or eliminate one or more potential impacts of the proposed project. The discussion describes the basic features of each alternative, compares its effects to those of the proposed project, and presents reasons for its consideration or rejection by the project sponsor.

In addition to the "no-project" alternative (Alternative A) required by CEQA, the following alternatives are analyzed: B. Continued Buildout of the 1978 Yerby Development Plan; C. Mixed-Use/Medium-Density Development; D. Maximum Housing Development including D.1 Maximum Housing (No Hotel) and D.2 Maximum Housing with Hotel; E. Construction of the 1983 Development Plan; F. Special Use District Classification; and G. Planned Unit Development Designation. Alternatives A, B, C, D and E consider alternate mixes of uses and floor areas to the proposed project. Alternatives F and G consider different approval mechanisms for the project; the total floor areas, site plan and mix of uses would be the same as for the proposed project. A comparison of the total floor areas and the types of uses proposed for each alternative is given in Table 17, p. 192.

As with the analysis of the proposed project, each alternative includes OB 1 and OB 2 as part of the existing setting. OB 3, OB 4 and the Alana Way restaurant, which have been approved but not completed, are considered as part of cumulative development on-site, but are not included as part of the proposed project or alternatives. Therefore, impacts associated with OB 3, OB 4 and the Alana Way restaurant are not included in the discussion below, as those impacts would remain the same for each alternative and have already been analyzed in Chapter V, Environmental Impacts, starting on p. 74.

A. NO PROJECT: NO DEVELOPMENT OF THE SITE BEYOND OB 1 - OB 4

If Alternative A were implemented, the project area would not be developed and development of the Executive Park site would not occur beyond OB 3, OB 4, and

TABLE 17: COMPARATIVE DESCRIPTION SUMMARY OF ALTERNATIVES

	Proposed Project	Alternative A (No development beyond OB 1 - OB 4)	Alternative B (Full Buildout of 1976 Master Plan as amended through 1981)	Alternative C (Mixed-use/ Medium- Density)	Alternative D.1 (Maximum Housing Development- No Hotel)	Alternative D.2 (Maximum Housing with Hotel)	Alternative E (1983 Development Plan Amendment)	Alternatives F and G SUD or PUD /b/
Office (Sq. ft.)	1,150,000	0	345,000	750,000	0	0	1,150,000	1,150,000
Retail/Restaurant (Sq. ft.)	45,000	0	28,000	5,000	5,000	5,000	45,000	45,000
Hotel/Meeting (Sq. ft.) Rooms	234,000 350	0	239,000 420	0	0	234,000 350	234,000 350	234,000 350
Residential (Sq. ft.) Units	425,000 600	0	0	96,000 120	1,044,000 1,300	1,044,000 1,305	425,000 500	425,000 600
Parking (Spaces)	4,070	0	2,475	1,960	1,960	2,310	3,900	4,070
Total Proposed Gross Floor Area (New construction)/a/	1,854,000	0	612,000	851,000	1,049,000	1,283,000	1,854,000	1,854,000
Existing and Approved	499,000	499,000	499,000	499,000	499,000	499,000	499,000	499,000
Grand Total Sq. Ft. of Revised Executive Park Master Plan (Full Buildout)	2,353,000	499,000	1,111,000	1,350,000	1,548,000	1,782,000	2,353,000	2,353,000
Height / Bulk District Reclassification	Yes	No	No	No	Yes	Yes	Yes	Yes
Comprehensive Plan Amendment for Residential Use	Yes	No	No	Yes	Yes	Yes	Yes	Yes

/a/ Totals do not include OB 1 - OB 4 and the Alana Way Restaurant.

/b/ Alternatives F and G have the same square footage as the project for each land use. These alternatives differ from the project only as to their approval mechanisms. SUD refers to a Special Use District and PUD refers to a Planned Unit Development.

SOURCE: Environmental Science Associates, Inc.

the Alana Way restaurant, all of which have been approved under the 1978 Yerby Development Plan. (The "no-project" alternative could also involve full development of the approved 1978 Development Plan; see discussion of Alternative B below). Existing uses on the site would be similar to those discussed in IV, A. Land Use and Zoning (Setting), pp. 34-41, except that an additional 284,000 sq. ft. of office space (OB 3 and OB 4) and 5,000-sq.-ft. of restaurant space would be developed on-site. Increased effects on transportation, air quality, noise, energy, employment, and housing demand, attributable to OB 3 and OB 4, are discussed in those respective impact sections in Chapter V. Total development of Executive Park proposed in Alternative A would be about 499,000 gross sq. ft. of floor area, including OB 1 and OB 2 (210,000 sq. ft.). On the assumption that proposed cumulative development in nearby Brisbane also would take place, the effects on intersection capacities would be similar to those shown in the second column of Table 6 (Existing + On-site and Local Cumulative Without Improvements) on p. 104.

Implementation of Alternative A, the no-project alternative, would permit two options: 1) the site would remain undeveloped; or 2) the site would be acquired for public open space.

A.1 SITE REMAINS UNDEVELOPED

The 60-acre project area would not be developed in this variant of Alternative A, although landscaping and other features of the previous conditions of approval for OB 1, OB 2, OB 3, OB 4, and the Alana Way restaurant would be implemented. It would be necessary for the City to purchase the site in order to preserve the option of developing the site into open space in the future.

If the project area remained undeveloped, the environmental characteristics of this alternative would be substantially the same as those described in the environmental setting section of this report (see Chapter IV, Environmental Setting, pp. 34-73 for a discussion of existing conditions). Geology, transportation, air-quality, noise and energy impacts associated with construction and operation of the project would not occur. Topographic alteration of the project area would be minor. The slopes of Bayview Hill above about the 50-ft. elevation would not be disturbed. Transportation, transit, air quality and noise conditions described (in Chapter V of this report), as 1996 base

conditions with local and regional cumulative development (including OB 3, OB 4 and the Alana Way restaurant), but without the project, would exist on streets in the project vicinity and on US 101 in 1996. Employment and housing impacts would not increase over those expected from the full buildout and full occupancy of OB 1 - OB 4 (about 1,800 employees). No increases in housing demand and support retail services would occur beyond those generated by the existing and approved uses at the site.

A.2 SITE ACQUIRED FOR USE AS PUBLIC OPEN SPACE

The undeveloped project area could be developed into public open space and included in an expanded Bayview Park, if it were acquired by the City. The City has no plan at the present time to acquire the project area if it were available./1/ Open-space use of the site would be consistent with the recommended use of the site in the San Francisco Bay Plan of the San Francisco Bay Conservation and Development Commission (BCDC). An open-space use would not conform to the all-commercial-use designation of the site in the San Francisco Comprehensive Plan - South Bayshore Plan. Any action to acquire the site would be made after this Plan were amended to recommend public open space use. If the City were to landscape the site for erosion and sediment control, the visual quality of the existing site would be enhanced. Otherwise, hillside erosion and minor slides would continue to occur. Depending on the extent and type of landscaping, open-space use of the site would maintain or improve the existing habitat value of the site for wildlife.

STATUS OF ALTERNATIVE A/2/

The sponsor has rejected this alternative because it would preclude its right to fully develop the 1978 Yerby Development Plan (including the 1980 and 1981 design changes) and to develop the current plan. The Yerby Plan would create permanent jobs and construction employment, and would provide economic development in an area of the City that would benefit from it.

NOTES - Alternative A

/1/ Timothy Lillyquist, Assistant to the General Manager, San Francisco Recreation and Park Department, telephone conversation, September 18, 1984.

/2/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, June 12, 1984.

B. CONTINUED BUILDOUT OF THE YERBY DEVELOPMENT PLAN

This alternative would continue construction of the 1978 Yerby Development Plan, including the two design changes approved in 1980 and 1981. Alternative B would not require further environmental evaluation or project approval other than additional site permit approvals. (See Appendix A, p. A-2 for a chronology of events in the approval process for the Yerby Development Plan.)

Alternative B would consist of 345,000 sq. ft. of office space (not including OB 1 - OB 4), 28,000 sq. ft. of retail/restaurant space (not including the 5,000-sq.-ft. restaurant on Alana Way), and 239,000 sq. ft. of hotel/convention (420 rooms), a total of 612,000 sq. ft. of construction. No residential uses were proposed in the Yerby Development Plan (see Figure 20, p. 196 for a site plan of Alternative B). Full buildout of the 1978 Yerby Development Plan would total 1.1 million sq. ft. (including OB 1 - OB 4 and the restaurant on Alana Way). OB 1 - OB 4 and the restaurant are considered as approved cumulative on-site development and are not analyzed further in this alternative. A comparison of full buildout of the 1978 Yerby Development Plan to full buildout of the revised Development Plan (with amendment) is given in Appendix A, Table A-2, p. A-5.

Alternative B would add about 70% less total floor area than is proposed for the project. Alternative B would include more hotel rooms and slightly more hotel space, and would include less office and retail/restaurant space than would the proposed project. No housing would be included in Alternative B; therefore, it would be consistent with the current all-commercial-use designation of the site specified in the South Bayshore Plan of the Comprehensive Plan. The Comprehensive Plan designation of the site was changed from all-residential to all-commercial in 1976, specifically to allow the development of the then-proposed Yerby Development Plan. Alternative B would not require a height and bulk district reclassification of the site for uses outside of the 230-G district. The present 230-G district was changed from 40-X in response to the three 230-ft.-high towers proposed in the Yerby Development Plan.

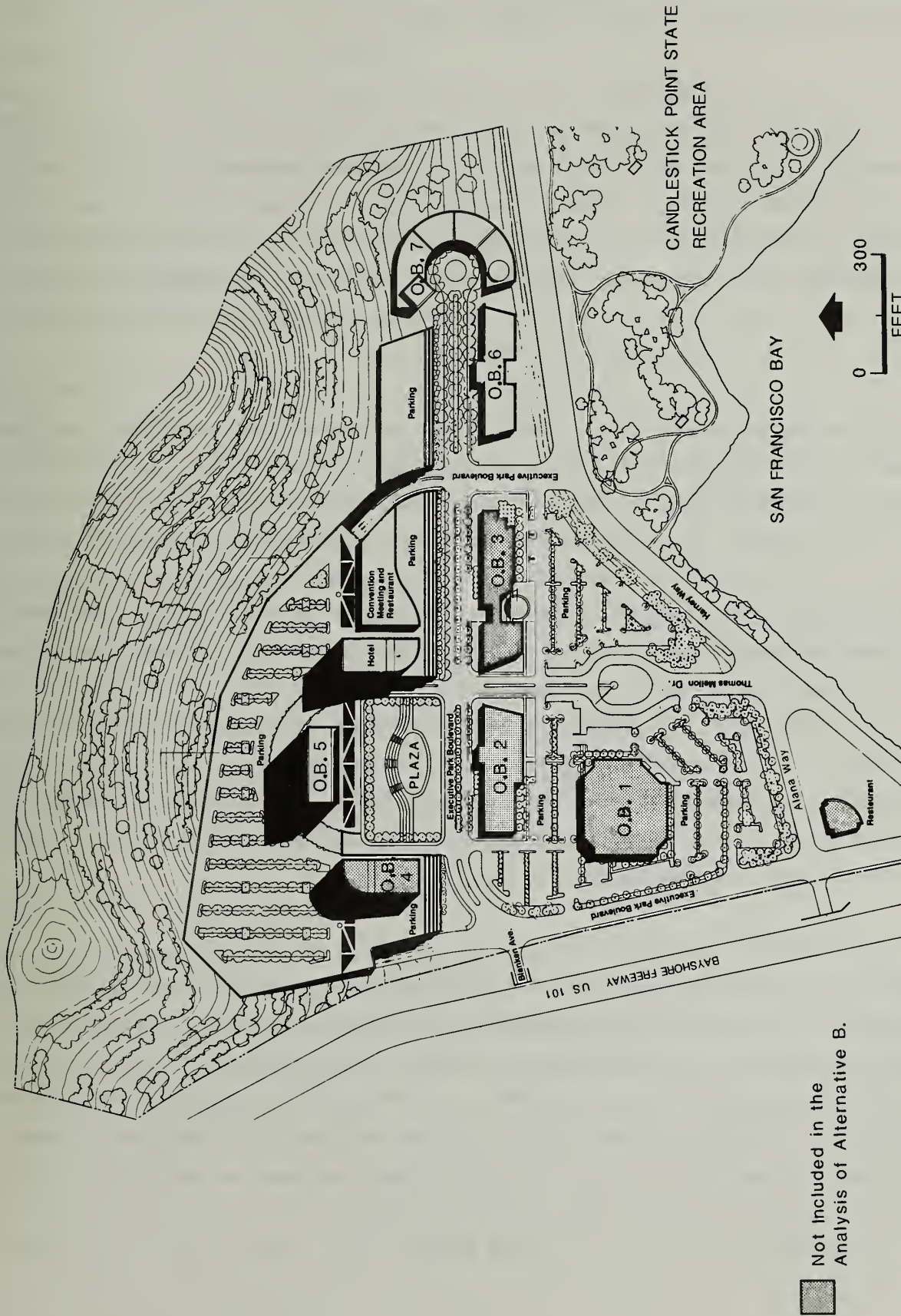


FIGURE 20: ALTERNATIVE B - YERBY MASTER PLAN

Land uses in Alternative B would differ from those of the project because no residences would be developed.

As with the project, development in Alternative B would be concentrated on the lower slopes of Bayview Hill; the upper slopes of Bayview Hill would be topographically unaltered and landscaped. In this alternative OB 4, another office building (OB 5), and the hotel would be located in the northwestern and north central portions of the site. These structures would be within the existing 230-G height district and could be built up to 230 ft.; remaining structures would be 40 ft. in height or lower. The heights of buildings in the proposed project would range from 40 ft. to a maximum of 200 ft., about 30 ft. lower than the tallest building proposed in Alternative B.

Wind conditions associated with this alternative would be similar to those of the proposed project. For each of three wind directions (westerly, northwesterly, and southwesterly), conditions in Little Hollywood would remain unaffected with this alternative as they would with the project. The Town Center area would experience approximately the same wind flow in both direction and magnitude for westerly and northwesterly winds as with the project; southwesterly wind flows would be increased slightly. Average wind speeds along Executive Park Blvd. North would be approximately the same as described for the project, although there would be increased upward swirling (vortex) of the northwesterly winds. The undeveloped Candlestick Point State Recreational Area would experience approximately the same wind flow and speeds as with the proposed project. Westerly and northwesterly wind conditions at the Candlestick Park Stadium would remain the same in Alternative B as for the project, whereas southwesterly wind speeds would increase slightly over project winds with elevated levels of turbulence.

Under this alternative, the mix of uses would generate employment opportunities for approximately 1,655 workers, about 3,000 fewer than with the project. Alternative B, the 1978 Yerby Plan with the 1980 and 1981 design changes proposed by Campeau, was presented to the City Planning Commission prior to implementation of the January 1982 Office Housing Production Program (OHPP). Therefore it is assumed that the OHPP guidelines would not apply to the 1978 Yerby Plan. Alternative B would generate about \$1.87 million in revenue to the City and County of San Francisco, as compared to project net revenues of \$4.47 million. On the basis of 68,000 annual Muni trips, a deficit (cost per ride minus fare per ride) to Muni of about \$34,000 would result with this alternative;

this deficit would be offset by annual revenues of \$187,000 accruing to Muni. In comparison, the project would generate a deficit to Muni of \$222,000, which would be offset by annual revenues of \$448,000.

Alternative B would result in a total of about 7,470 daily vehicle trip ends (vte) and 950 peak hour vte. Compared to the project, this would be about a 53% reduction in daily vte and about a 60% reduction in peak-hour vte. Daily transit trips would be reduced by 80% and peak-hour transit trips would be reduced by 76%. A larger percentage of the trips would originate off-site (88% for Alternative B versus 76% for the project), as no housing would be included in Alternative B.

Alternative B would reduce air pollutant emissions by about 53% compared to the project. Roadside carbon monoxide concentrations would be reduced by up to 15% (depending on location). Noise impacts associated with this alternative would generally be similar to those of the project. Alternative B would consume about 70% less natural gas and 65% less electricity than projected for the project.

Alternative B would require somewhat less slope cutting than the proposed project because the garage and housing uses proposed for the project extend farther up the hillside than do the uses in the Yerby Development Plan. Overall, the amount of grading and excavation would be about the same as for the project.

This alternative would have substantially the same impacts on wildlife and vegetation as described for the proposed project (see Section V, pp. 137-138).

STATUS OF ALTERNATIVE B/1/

The sponsor would not develop Alternative B for several reasons. The sponsor believes that the proposed project would provide a better design than the 1978 Yerby Development Plan. In comparison to the proposed project, the Yerby Plan does not provide for housing, nor does it create a well-integrated and balanced mix of uses that would encourage 24-hour activity at the site. The Yerby Plan does not provide the sense of an urban center, nor does it provide the best use of the site that would achieve

several economic, fiscal and employment objectives set forth in the Commerce and Industry Element of the Comprehensive Plan. The 1978 Yerby Development Plan is not reflective of the site's potential as the entrance to the City. The proposed project design eliminates the three previously approved free-standing, 230-ft. high-rise towers and provides for a better integration of the project into the form of Bayview Hill. Also, the proposed project would create almost twice as many employment opportunities for City residents as those provided in the 1978 Yerby Development Plan.

NOTE - Alternative B

/1/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, June 12, 1984.

C. MIXED-USE/MEDIUM-DENSITY DEVELOPMENT

This alternative would consist of the construction of 750,000 sq. ft. of office space, 5,000 sq. ft. of retail space and 96,000 sq. ft. of residential space (120 units), a total of 851,000 sq. ft. of new construction (exclusive of OB 1 - OB 4 and the Alana Way restaurant), with no development above the 100 ft. elevation of Bayview Hill. For comparison, the project would develop about 1.85 million sq. ft. of floor area (see Table 17, p. 192). No hotel/meeting space would be included in this alternative. Office uses would be developed in three 190-ft.-high towers on the northwestern portion of the site; housing would be developed on the eastern portion of the site in structures 40 ft. high or less (see Figure 21, p. 200).

Alternative C would include land uses similar to those of the project. No height and bulk district reclassification would be required, as all structures outside of the 230-G district would be 40 ft. tall or less. As with the project, Alternative C would require an amendment to the South Bayshore Plan of the Comprehensive Plan to permit residential use on the site.

This alternative would have less visual impact on Areas 2 and 3 than would the project. No topographic alteration of the site would be necessary above the existing 100 ft. elevation (San Francisco datum); however the three 190-ft.-high towers on the northwestern portion of the site would obstruct views of Bayview Hill below the 225 ft. elevation. The three rectangular, high-rise office towers would be visually disparate in relation to Bayview Hill and the 40-ft.-high residential structures.

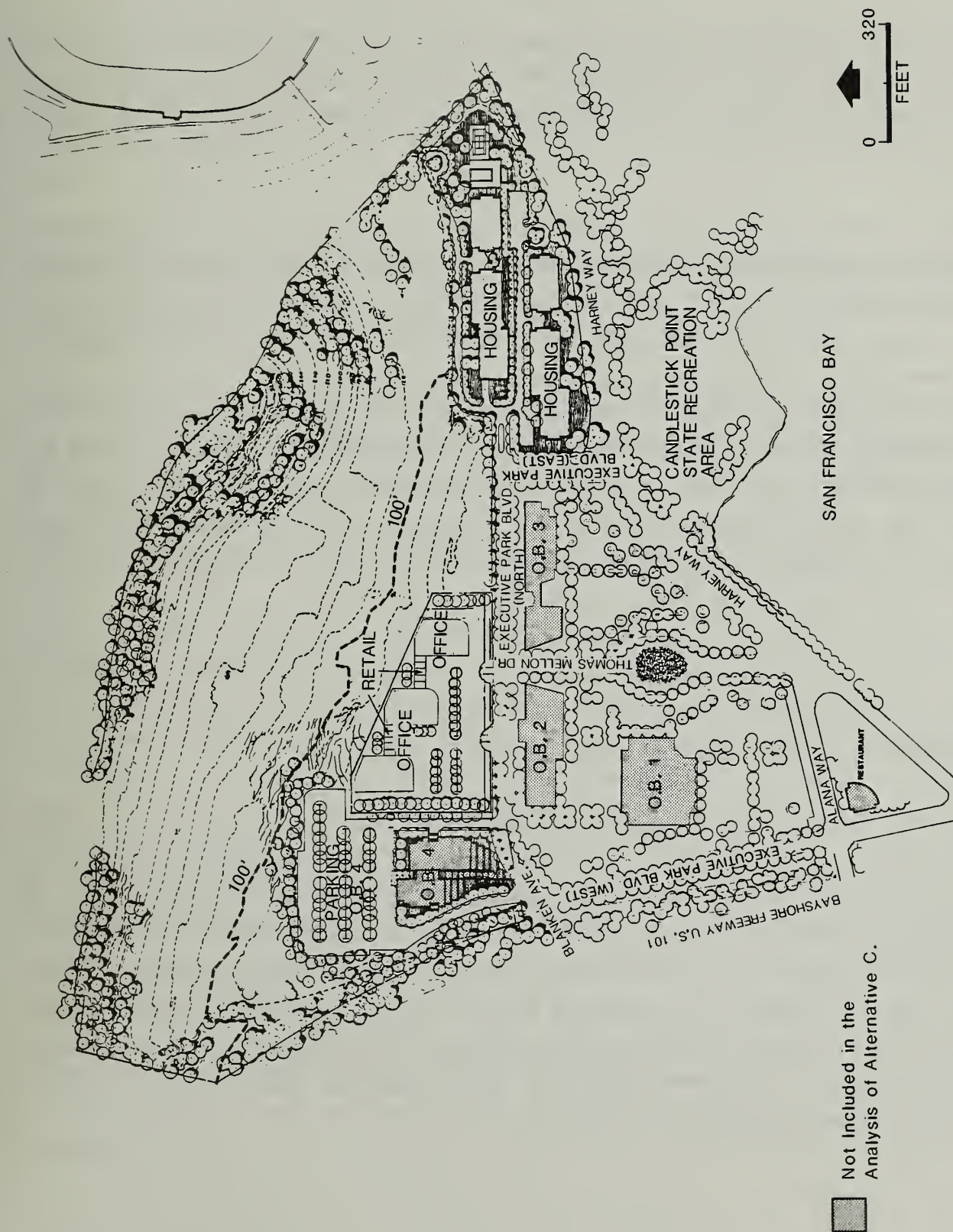


FIGURE 21: ALTERNATIVE C - MIXED-USE/MEDIUM-DENSITY DEVELOPMENT

Alternative C could be designed with towers shorter than 190 ft., which would reduce the visual impacts of this alternative. To achieve the smaller amount of office floor area, development could be spread out in undeveloped areas below the 100 ft. elevation.

Alternative C was tested in the Wind Tunnel test for each of the major wind directions (see Notes /5,6/, p. 50 for a description of the testing procedures). Winds associated with this alternative would result in the following changes compared to those with the proposed project:

Winds in Little Hollywood would be similar to those that would occur with the proposed project. Average summer afternoon winds on the western portion of Bayview Hill would decrease (from levels with the proposed project) by one to three miles per hour (mph) with west winds, and would remain about the same as with the project with northwest and southwest winds. On the eastern portion of Bayview Hill, north of the housing in Area 3, winds would increase (compared to the project) under the three wind directions. At the intersection of Executive Park Blvd. North and Thomas Mellon Dr., west, northwest and southwest winds would remain about the same as with the project. Northwest winds on Alana Way and on Harney Way (near the Candlestick Point Recreation Area) would increase (as compared to the project) about two to five mph, while west and southwest winds would change little. West and southwest winds would be substantially reduced (compared to the project) at the eastern end of Executive Park Blvd. North (in Area 3) while northwest winds would increase slightly. Candlestick Park Stadium would be slightly less windy with this alternative when winds blew out of the southwest, and winds there would be similar to those of the project with west winds.

Alternative C would generate about 2,760 employment opportunities. On the basis of the OHPP formula and survey results from OB 1 and OB 2, the office space proposed by this alternative would generate a demand for between 670 and 700 residential units, as compared to a project demand for 1,020 to 1,070 units. This alternative would generate about \$2.65 million in revenue to the City and County of San Francisco, about 41% less than would the project. On the basis of 217,000 Muni trips annually, a deficit of about \$108,500 would accrue to Muni with this alternative, 51% less than the deficit generated by the project. As with the project, this deficit would be offset by annual revenues accruing to Muni (\$265,000 for Alternative C).

Alternative C would generate about 8,600 daily vte and 1,650 peak-hour vte for a total reduction of 46% and 33%, respectively, when compared to the project. Daily transit use would be 43% less and peak-hour transit use 36% less than with the project. With this alternative, there would be about a 45% reduction of air pollutant emissions, and a decrease of up to 13% (depending on location) in roadside CO concentrations. Operational noise effects of this alternative generally would be similar to those of the proposed project. Energy consumption of Alternative C would consume about 55% less than the natural gas consumption and 60% less than the electricity consumption demand of the project.

Alternative C would require less slope cutting, excavation, and grading than the proposed project. This reduction in cut would be most noticeable in the upper central portion of the site which is above 100 ft. in elevation (see Figure 19, Section B, p. 134).

This alternative would remove less wildlife habitat on the site than would the project. The habitat that would be eliminated consists of exposed soil and ruderal vegetation that has little habitat value, but some small wildlife would be eliminated. As with the project, this alternative would introduce residential uses to the site; increased use of open space on the site and north of the site by residents could degrade the wildlife value of these areas.

STATUS OF ALTERNATIVE C/1/

The sponsor would not develop Alternative C for the same reasons stated for Alternative B (see pp. 198-199). Specifically, the sponsor believes that the proposed office and housing uses in Alternative C would not provide an optimum mix of uses, create a destination image for the site, nor encourage 24-hour activity at the site. The sponsor also believes that the separation of uses on the eastern and western portions of the site and the dissimilar heights of the office and housing structures would not allow an integrated design, and that the 750,000 sq. ft. of office space would not be sufficient to support the 120 housing units. This alternative would not include hotel/meeting support facilities to complement office use at the site. The project sponsor believes exclusion of the hotel from the project would reduce the economic feasibility of the site, alter the proposed balance of uses, and eliminate the majority of employment opportunities for less-skilled workers.

NOTE - Alternative C

/1/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, June 12, 1984.

D. MAXIMUM HOUSING DEVELOPMENT

Under Alternative D, two development schemes could be considered for the site: 1) construction of 1,300 residential units with 5,000 sq. ft. of retail space; or 2) construction of Item 1) with the addition of a 350-room hotel.

D.1 MAXIMUM HOUSING (NO HOTEL)

This alternative would develop the entire project site into housing, with the exception of OB 1 - OB 4 and the approved restaurant on Alana Way. Alternative D.1 would construct about 1,300 residential units and 5,000 sq. ft. of retail space, a total of 1.05 million sq. ft. of floor area (see Figure 22, p. 204). For comparison, the project would develop 1.85 million gross sq. ft. of office, residential, hotel and retail space, including 600 dwelling units. The 1,300 units proposed in Alternative D.1 would be about 1,970 units fewer than the maximum permitted for the project area in the C-2 zoning district.

A less-varied mix of uses would be developed in this alternative, as compared to the proposed project. Alternative D.1 would not conform to the all-commercial-use designation of the site in the amended South Bayshore Plan; the original South Bayshore Plan had recommended that about 700 market-rate units be developed at the site, 600 units fewer than would be developed in this alternative.

In Alternative D.1, three 230-ft.-high residential towers would be developed within the existing L-shaped 230-ft. zoning district on the northwestern portion of the project area (see Figure 12A, p. 80). These towers would be visually prominent along US 101 and from the Little Hollywood area, similar to those included in the Yerby Plan. Housing on the eastern portion of the site would range from 40- to about 120-ft. in height. As with the project, a height and bulk district reclassification would be required for housing structures taller than 40 ft. that would be located outside of the existing 230-G district.

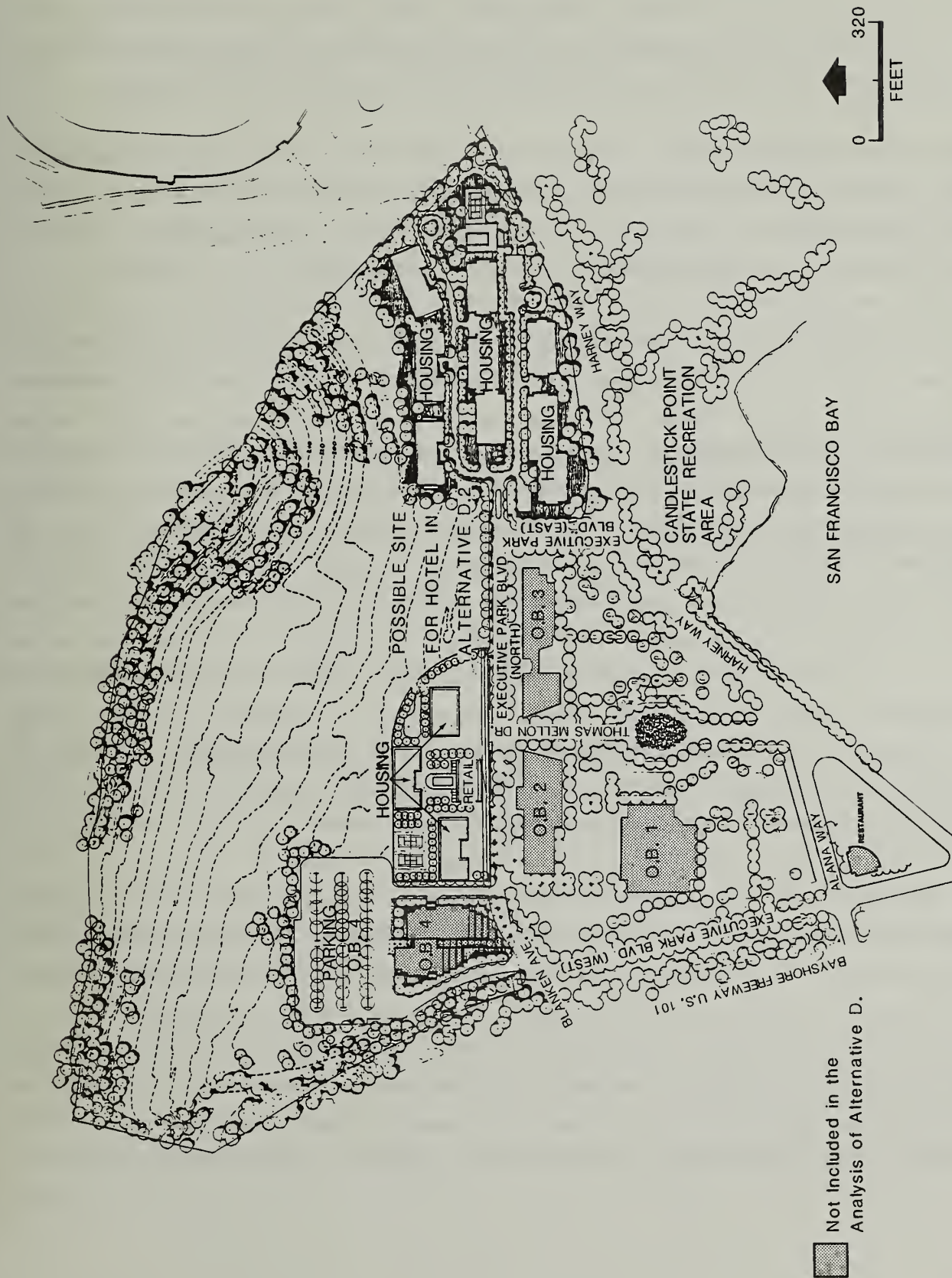


FIGURE 22: ALTERNATIVE D - MAXIMUM HOUSING DEVELOPMENT

SOURCE
HELLMUTH, OBATA, & KASSABAUM

The scale of Alternative D.1 would be slightly more intense than that of the project, because of the development of three, free-standing 230-ft.-high residential towers on the northwestern portion of the site. The project would develop two 200-ft.-tall office structures in the northern central portion of the site; however, these structures would be integrated visually by the 145- and 165-ft.-tall offices on either side of the towers.

The northern, hillside portion of Area 2 would be left as open space, although some grading would occur at the foot of Bayview Hill in the west central portion of the site, to allow construction of the parking lot behind OB 4. Area 3 would be visually similar to that in the proposed project, including the cutting back of the foot of Bayview Hill.

With this alternative, there would be approximately the same wind flow in both direction and magnitude in the Little Hollywood area as with the project. West wind conditions along the north end of Thomas Mellon Dr. would also remain the same as project winds; southwesterly and northwesterly winds would be higher than with the project. Executive Park Blvd. North would experience greater winds with this alternative, resulting in occurrence of high wind speeds at the pedestrian level. With Alternative D.1, the Candlestick Point State Recreation Area would experience a 15-25% reduction in northwesterly wind speeds when compared to the project. The top of Bayview Hill (Bayview Park) would experience slightly higher wind speeds with this alternative for westerly and southwesterly winds than with the project and the same wind speeds for northwesterly winds as with the project. There would be essentially the same wind environment in and around Candlestick Park Stadium with Alternative D.1 for the northwesterly winds, and a slight increase, over the project, for westerly and southwesterly winds, with increased turbulence at ground level.

The 5,000 sq. ft. of retail space would provide about 14 jobs; a likely tenant would be a 24-hour convenience store to serve the 1,300 residential units. If the distribution of units were the same as in the project, this alternative would provide 1,036 one-bedroom and 264 two-bedroom units. On the assumption of 1.5 persons per one-bedroom unit and 2.5 persons per two-bedroom unit, approximately 2,210 persons would live at the site. This alternative would generate about \$2.12 million in revenue to the City and County of San Francisco, about 47% of the revenue which would be generated by the project. The annual Muni operating deficit attributable to this alternative would be about \$339,700,

53% more than the project's deficit. After accounting for revenues (\$212,000), Alternative D would result in a net deficit of \$127,700 to Muni.

In this alternative, residents would generate about 3,830 daily vte and 390 peak-hour vte, a total reduction of 75% daily vte and 85% peak-hour vte in comparison to the project. Daily transit trips would increase by about 20% whereas peak-hour transit trips would decrease by about 20% from the project. There would be about a 73% reduction in air pollutant emissions, and roadside CO concentrations would decline by up to 23% (depending on location) as compared to those of the project. Noise effects generally would be similar to or slightly less than those of the project. There would be an introduction of a greater number of sensitive noise receptors (residences) on the site. There would be a 44% reduction in the consumption of natural gas and a 49% reduction in the consumption of electricity as compared to the project.

Alternative D.1 would require less cutting, excavation and grading than the proposed project. This alternative would develop approximately the same portions of the site as would the project, except for the project's hotel site. However, this alternative would have a greater impact on vegetation and wildlife than the project, because of increased use of open space areas by project residents and their pets.

D.2 MAXIMUM HOUSING WITH HOTEL DEVELOPMENT

The site could be developed with 1,300 residential units as described in Alternative D.1, p. 203, with the addition of a 160-ft.-high, 350-room hotel and meeting space. Housing with 5,000 sq. ft. of retail space would be situated as shown in Figure 22, p. 204; the proposed hotel could be situated between the eastern and western housing complexes, stepping up into the hillside. Total development in this variant would be 1,283,000 sq. ft., including 1,044,000 sq. ft. of housing (1,300 units); 234,000 sq. ft. of hotel space (350 rooms); and 5,000 sq. ft. of retail space.

Effects of this alternative, in comparison to the project, would be similar to those described for Alternative D.1, except for the categories of land-use mix, visual effect, employment, fiscal, and transportation. For a discussion of effects on the Comprehensive Plan, zoning, wind, housing, air quality, noise, and excavation, refer to those respective discussions starting on p. 74.

Although less varied than the proposed project, the residential and hotel uses proposed in Alternative D.2 would provide a diversity of uses at the Executive Park site. The proposed housing with 5,000 sq. ft. of retail, combined with a 350-room hotel and the existing and approved office buildings OB 1 - OB 4, would provide the opportunity for 24-hour activity at the site. As with the project, development of hotel space in this alternative could contribute to an oversupply of hotel rooms in San Francisco and on the Peninsula (see pp. 144-145).

Visually, the scale of this alternative would be slightly more intense than that of the project. The 160-ft. hotel added to the three 230-ft.-high residential towers would create a slightly more intense appearance in the northwestern and central portions of the site than would occur with the project, which proposes office structures (from west to east) of 140, 200, and 165 ft. in height.

A housing and hotel development would provide jobs for 200 hotel workers, many of which would be entry-level. In addition, 14 jobs would be provided for retail workers and 75 jobs for residential maintenance workers. These jobs would be 4,280 fewer than would be provided by the project. This variant would provide the City General Fund with about \$101,000 (1984 dollars) in hotel room tax revenues, as would the project. See pp. 205-206 for discussion of revenues that would be common to both Alternatives D.1 and D.2.

In addition to the 3,830 daily and 390 peak-hour vehicle trip-ends (vte) generated by residents, 2,130 daily and 150 peak-hour vte would be generated by hotel workers and guests. Total traffic generated by on-site residential and hotel uses (5,960 daily vte and 540 peak-hour vte) would represent a total reduction of 60% daily and 80% peak-hour vte in comparison to the project.

There would be about a 62% reduction in air pollutant emissions, and roadside CO concentrations would decline by up to 18% (depending on location) as compared to the project. Noise effects generally would be similar to those of the project. Alternative D.2 would require about 37% less electricity and 34% less natural gas than the project.

STATUS OF ALTERNATIVE D

The sponsor would not develop Alternative D.1, Maximum Housing - No Hotel. The sponsor believes that without a complementary mix of office/commercial/hotel uses, an

all-housing development could not be marketed at the site, nor would it encourage 24-hour activity at the site. The exclusion of the hotel in Alternative D.1 would reduce the number of unskilled employment opportunities, as compared with the proposed project. The three 230-ft.-high towers would obscure more views of the upper slopes of Bayview Hill than would the project; the alternative would not retain Bayview Hill as a prominent feature./1/

Alternative D.2, Maximum Housing With Hotel, also has been rejected by the sponsor. The sponsor believes that the addition of a hotel to an all-housing development still would not provide a sufficient mix of office/commercial uses to allow it to market the site successfully, and compete with other existing and proposed hotel space on the Peninsula. As stated in the Hotel Market discussion on pp. 144-145, hotel occupants are anticipated by the sponsor's hotel marketing consultant, Laventhol and Horwath, to be primarily persons attending meetings, and overnight business travelers, some of whom would be associated with the on-site office space. Office space that would be provided in OB 1 - OB 4 (494,000 sq. ft.) would not be sufficient to support a 350-room hotel at the site. Also, as stated for Alternative D.1, this variant has been rejected because the three 230-ft.-high towers would obscure views of the upper slopes of Bayview Hill and would not retain Bayview Hill as a prominent feature./2/

NOTES - Alternative D

/1/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, June 12, 1984.

/2/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, telephone conversation, January 11, 1984.

E. CONSTRUCTION OF 1983 DEVELOPMENT PLAN AMENDMENT

This alternative would consist of the Development Plan Amendment reviewed in 1983 in the Draft Subsequent Environmental Impact Report which was published September 9, 1983 (see Figure 23, p. 209). Alternative E would include approximately the same mix and total amount of square footage of uses as the proposed project. However, Alternative E would differ from the project by providing 500 units of housing (100 fewer than the

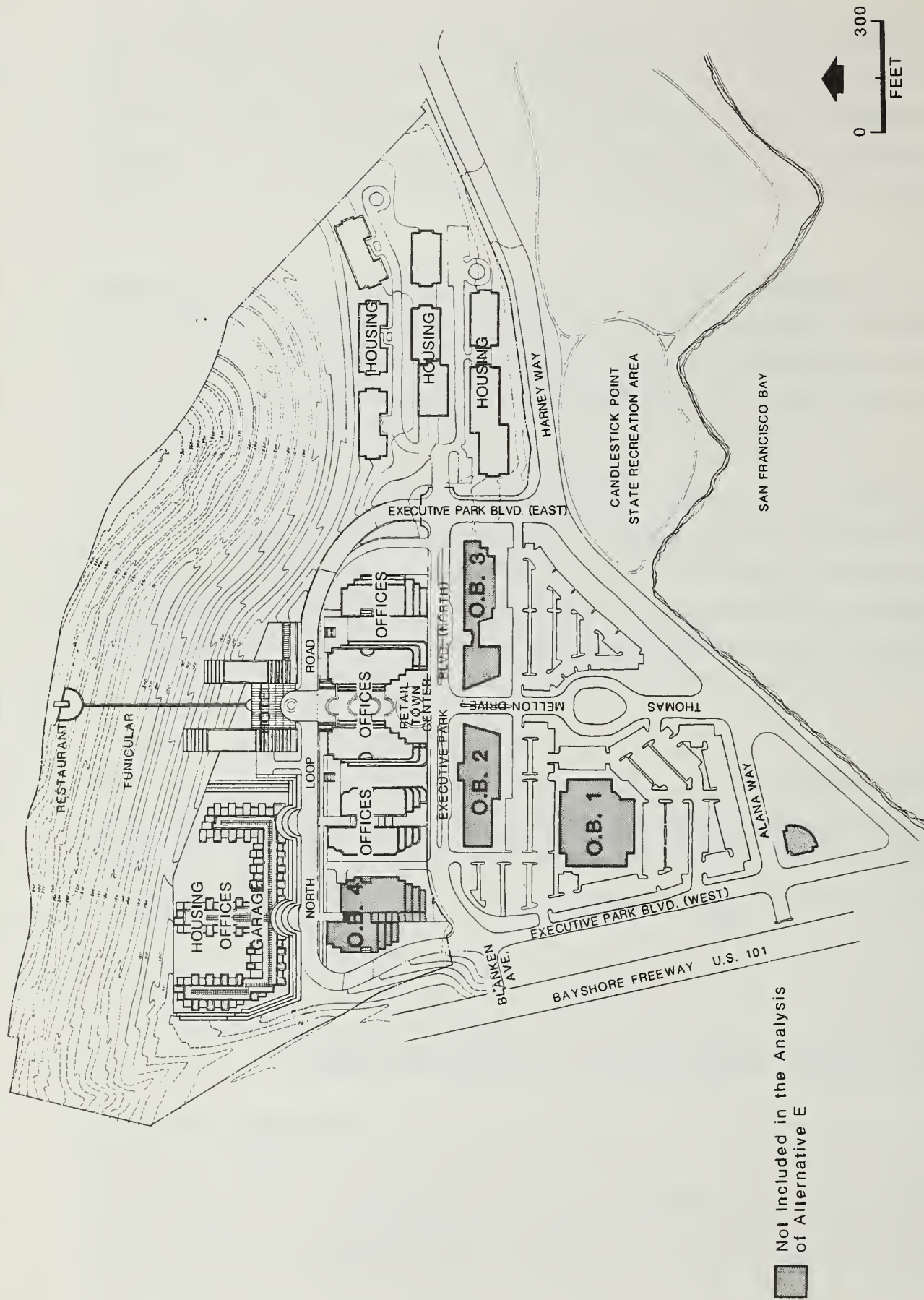


FIGURE 23 ALTERNATIVE E - 1983 PROPOSED
DEVELOPMENT PLAN AMENDMENT

SOURCE
HELLMUTH, OBATA, & KASSABAUM

project); developing a 5,000-sq.-ft. hillside restaurant accessed by a funicular; constructing the hotel complex in the north central portion of the project area just north of the office structures in Area 2; developing an office/housing/garage structure in the northwestern portion of the project area; and, providing about 170 fewer parking spaces. (See also discussion on p. 3 comparing the 1983 and 1984 Development Plans.)

This alternative would provide about 1.85 million gross sq. ft. of floor area (exclusive of the approved development in OB 1 - OB 4 and the Alana Way restaurant) with about 1.15 million sq. ft. of new office space, 425,000 sq. ft. of residential use, 234,000 sq. ft. of hotel and meeting space, and 45,000 sq. ft. of restaurant and retail space. In addition, 3,900 parking spaces would be provided.

Alternative E would include land uses similar to those of the proposed project. Approximately 23 acres of vacant land would be developed, leaving 21 acres as open space. Most portions of the site in the 40-X Height and Bulk district would require a reclassification to the 165-G district. As with the project, this alternative would require an amendment to the South Bayshore Plan of the Comprehensive Plan to permit residential use on the site.

This alternative would have more visual impacts on Areas 2 and 3 than would the project. A restaurant and funicular would be constructed at the top of Bayview Hill in Area 2. The maximum building height in Area 3 would be 120 ft., as compared to 80 ft. in the proposed project. More extensive topographic alteration of the site would be necessary above the existing 100 ft. elevation (San Francisco datum), for the office/housing/garage structure in the northwest corner and for the hotel, hillside restaurant and funicular.

Alternative E was tested in a wind tunnel test for each of the major wind directions./1/
Winds associated with this alternative would compare to the proposed project as follows:

Winds in Little Hollywood would be similar to those that would occur with the proposed project for westerly, northwesterly, and southwesterly directions. (The site is downwind from the Little Hollywood area, and would exert little influence on the winds there.) Westerly winds in the Candlestick Point State Recreation Area would increase

slightly under the alternative, compared to the project. Southerwesterly and northwesterly winds would remain the same as with the project. Winds at Bayview Hill Park and at Candlestick Park would be essentially the same as those that would occur with the proposed project for all three wind directions. Wind speeds in the project area would be similar under this alternative to those of the proposed project, except in the Area 3 housing area and the project's proposed hotel site, and, for southwesterly winds, in the Town Center. Residential building heights would be taller in Alternative E than those for the project, causing winds to be gusty and slightly higher than with the project in Area 3. However, in that area, westerly, northwesterly and southwesterly winds would all be below the 11 mph comfort criterion. Southwesterly winds in the Town Center would be higher than with the project. Winds in the vicinity of the project's hotel site would be higher than with the project.

With this alternative there would be about 15,630 daily vte and 2,440 peak hour vte generated. This represents a one percent reduction in the daily vte and no reduction in the peak hour vte when compared to the project. Daily transit trips would be reduced by about 6%, whereas peak-hour transit trips would decrease by about 2% from the project.

Alternative E would reduce air pollutant emissions by about 2% compared to the proposed project. Roadside carbon monoxide concentrations would be similar to those with the project. Noise impacts associated with this alternative generally would be the same as those of the project. Alternative E would consume about 5% less natural gas and 3% less electricity than the proposed project.

Alternative E would require an average vertical slope cut of 45 ft., about 30 ft. more than for the project. Maximum vertical cuts into the hillside for Alternative E would be the same as with the proposed project (85 ft.). Alternative E would excavate about 20% more material from the site than would the project.

This alternative would have substantially the same impacts on wildlife and vegetation as described for the proposed project.

Alternative E would generate about 4,630 employment opportunities. This alternative would create a demand for about 1,020 to 1,070 housing units. About 500 residential

units would be provided on-site as part of Alternative E. This alternative would generate about \$4.35 million (1984 dollars) in net revenue to the General Fund, approximately \$120,000 less than the proposed project. On the basis of 408,000 annual Muni trips, a deficit (cost per ride minus fare per ride) of about \$204,000 would result with this alternative; this deficit would be offset by a contribution to Muni from the General Fund of approximately \$435,000. In comparison, the proposed project would generate a deficit to Muni of \$222,000, which would be offset by annual revenues of \$437,000.

STATUS OF ALTERNATIVE E/2/

This alternative is the plan originally proposed by the sponsor, and has not been rejected. The development plan was revised and modified in response to design and housing issues raised by Department of City Planning staff.

NOTES - Alternative E

/1/ Dr. Bruce White, "Wind Tunnel Studies of the Executive Park," December 1982; and Dr. Bruce White, letter report, June 25, 1984. A copy of the study and letter report are on file and available for public review at the Office of Environmental Review, 450 McAllister, 5th Floor.

/2/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, August 7, 1984.

F. SPECIAL USE DISTRICT CLASSIFICATION

Alternative F would have the same uses, site plan, and total floor area as the proposed project. It would differ only in its approval mechanism. All project impacts described for the project in Chapter V, starting on p. 74, would remain so for Alternative F.

The basic approval steps for the proposed project are discussed on pp. 31-32. These steps include: 1) reclassification from the existing 230-G and 40-X Height and Bulk Districts to eight height and bulk districts, ranging from 40 ft. to 200 ft., and including bulk districts G, H, I and X; and 2) a text and map amendment to the South Bayshore Plan of the Comprehensive Plan to allow housing. These approval steps would amend the Planning Code and Comprehensive Plan to allow development of the project uses, but would not specify uses and building-specific development criteria.

Alternative F would create a Special Use District (SUD) as provided for in Section 235 of the 1979 City Planning Code. An SUD would specify principal and accessory uses for the project area. Creation of a Special Use District (SUD) classification would involve drafting and approval of an implementing ordinance that would amend the text and Zoning Map of the City Planning Code. A Special Use District designation of the site also could entail creation of a new zoning classification that would specifically accommodate a mixed-use development at the site. As with the proposed project, height and bulk district reclassifications and an amendment to the South Bayshore Plan would be required in Alternative F (in addition to an SUD).

In comparison to the approval mechanisms for the project, Alternative F would create a Special Use District that would acknowledge the mixed-use nature of the project, and allow the City to specify more directly the permitted uses at the site.

STATUS OF ALTERNATIVE F/1/

The sponsor has not chosen this alternative because currently a Special Use District classification for the Executive Park project does not exist. Drafting and approval of an SUD implementing ordinance would be a lengthy process. In addition to creation of the ordinance, approval of an SUD would require amendments to the text (Section 235) and Zoning Map of the City Planning Code (in addition to height and bulk reclassification and amendments to the South Bayshore Plan). The SUD and its implementing ordinance would also require separate environmental review. The sponsor does not believe that this would be an appropriate approach for project approval at this time.

NOTE - Alternative F

/1/ Jeanette Dinwiddie, Project Manager, Campeau Corporation California, letter, August 7, 1984.

G. PLANNED UNIT DEVELOPMENT DESIGNATION

This alternative would contain the same uses, site plan, and total floor area as the proposed project (see Chapter V, starting on p. 74, for a discussion of project impacts, which would be identical for Alternative G. The only difference would be that Alternative G would require Conditional Use authorization for the project as a Planned

Unit Development (PUD). In comparison to the approval mechanisms proposed for the project, Alternative G would allow more opportunity for the City Planning Commission and staff to review the proposed project as an integrated whole, and where appropriate, relax or modify some of the requirements when reviewing (and granting a permit for) individual buildings. For example, Section 135 specifies the amount of residential open space to be provided for each square foot of residential floor area. Depending on final, detailed design of the residential buildings, the project may need a PUD to redistribute or modify the open space required by the City Planning Code for residential uses. Under a PUD, the City Planning Commission would have the discretion of reviewing all of the open space areas on the site to determine if overall there would be sufficient open space for the residences instead of a building-by-building provision of open-space requirements.

In accordance with Section 304(a) of the City Planning Code, PUDs must be projects on sites of at least 1/2 half acre, "developed as integrated units and designed to produce an environment of stable and desirable character which will benefit the occupants, the neighborhood and the City as a whole." The proposed development also must "affirmatively promote applicable objectives and policies of the Master Plan," and "provide open space usable by the occupants, and where appropriate, by the general public, at least equal to the open spaces required by this Code." Section 304(a) of the City Planning Code further provides that, "In cases of outstanding overall design, complementary to the design values of the surrounding area, such a project may merit a well reasoned modification of certain of the provisions" of the Planning Code. A PUD is not exempt from any height limit established by Article 2.5 of the Code, unless explicitly authorized by the terms of the Code. To qualify for a PUD, the subject site must be entirely under one ownership. A formal determination has not yet been made by the Department of City Planning as to whether the project would meet all of the criteria for a PUD designation.

Alternative G, like the proposed project, would require, in addition to a PUD, a height and bulk district reclassification, and amendment to the South Bayshore Plan of the Comprehensive Plan to allow residential uses.

STATUS OF ALTERNATIVE G/1/

The sponsor has decided not to seek a PUD classification at this time. However, if the intended height and bulk reclassification and amendments to the City's Comprehensive

Plan are approved for the project, a portion of the PUD requirements would be met, and the possibility of future approval of the project as a PUD would not be precluded should this be sought by the sponsor at a later time.

NOTE - Alternative G

/1/ Jeanette Dinwiddie, Program Manager, Campeau Corporation California, letter, August 7, 1984.

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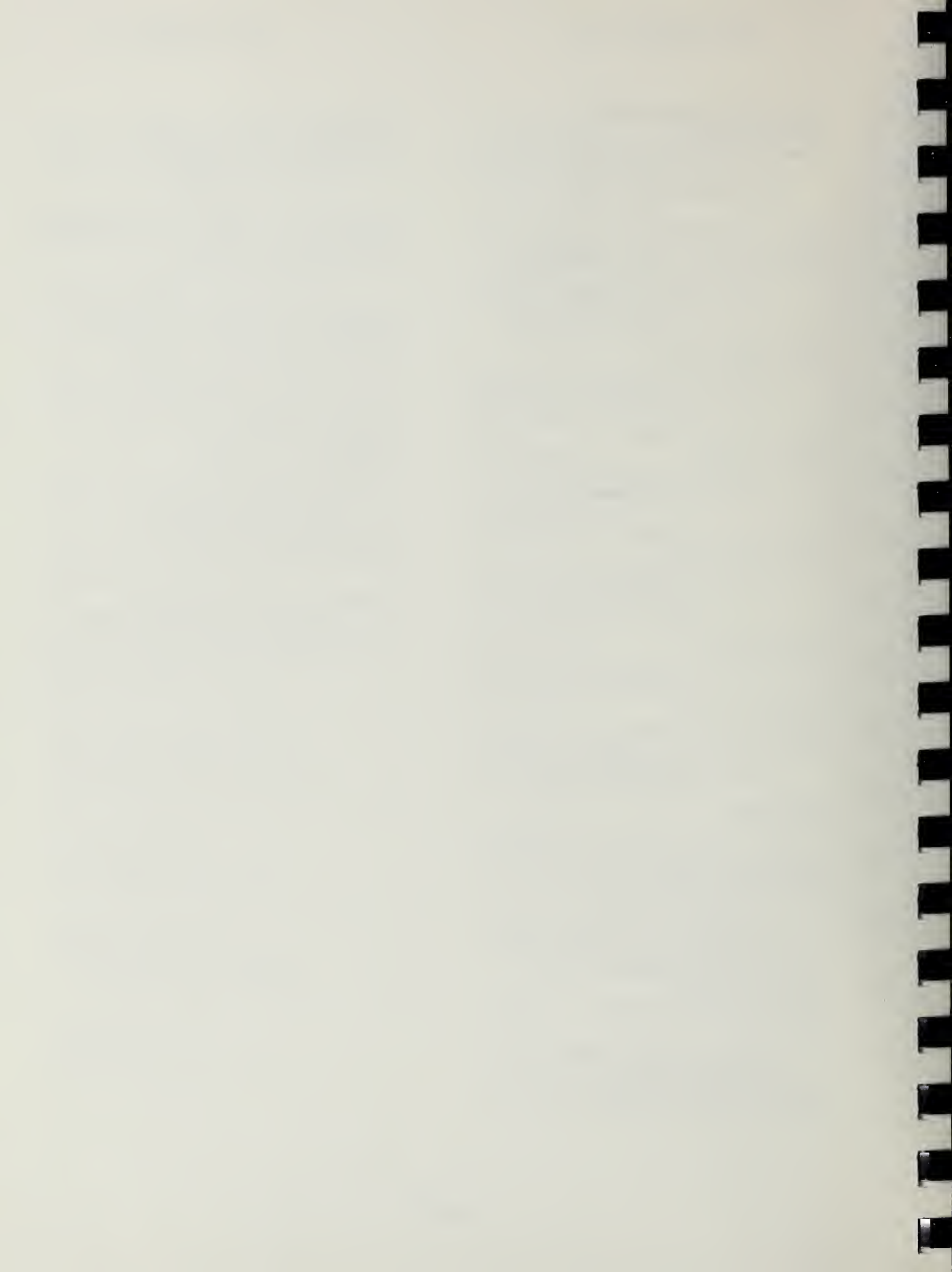
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XIII. APPENDICES

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APPENDIX A: CHRONOLOGY OF MAJOR ACTIONS PERTAINING TO THE SAN FRANCISCO EXECUTIVE PARK

February 19, 1970: The San Francisco Planning Commission by Resolution No. 6486 adopted as an amendment to the City's Master Plan a document entitled "Development Plan Amendment for the South Bayshore District." This amendment was based upon the South Bayshore Study, which recommended that the San Francisco Executive Park Site be developed as "low-density residential" with up to 700 units of market-rate housing.

August 12, 1976: The San Francisco Planning Commission adopted Resolution Nos. 7542, 7543, and 7544. Respectively, these resolutions certified the Final Environmental Impact Report (EE75.198) for San Francisco Executive Park, adopted map and text changes to the South Bayshore Plan changing its recommendation from residential to commercial and changed the zoning classification at the San Francisco Executive Park site from R-1 and M-1 to C-2.

August 26, 1976: The San Francisco Planning Commission changed the height and bulk district from 40-X to 230-G for the northwestern portion of the San Francisco Executive Park Site by Resolution No. 7546. By Resolution No. 7547, the Commission requested that the Yerby Corporation prepare a Development Plan for the San Francisco Executive Park Site, and declared a policy of discretionary review for any future changes to the Development Plan.

October 22, 1976: Former Mayor Moscone signed into law Ordinance Nos. 416-76 and 417-76, approving the zoning reclassification and height and bulk district amendments previously approved by the Planning Commission (Resolution Nos. 7543 and 7544).

August 24, 1978: The Yerby Corporation made an informational presentation of the Development Plan required by Resolution No. 7547 to the Planning Commission.

December, 1979: The Executive Park site was acquired by Campeau Corporation California.

December 18, 1980: The Planning Commission reviewed an amended Development Plan prepared by Robinson Mills & Williams Architects for Campeau Corporation California. This was a prerequisite for approval of building permit application No. 8010526 for Office Building 1 (OB 1), which was subsequently approved by DCP staff.

August 13, 1981: The Planning Commission reviewed revisions to the Robinson Mills & Williams Development Plan, and by Resolution 9089 granted discretionary review approval to building permit application No. 8104852 for Office Building 2 (OB 2).

June 29, 1982: An environmental evaluation application was submitted to the Office of Environmental Review, Department of City Planning by Campeau Corporation California for a Development Plan Amendment. The amendment proposed additional floor area and introduced a new use, housing.

September 24, 1982: An Initial Evaluation (Initial Study) of the proposed Development Plan Amendment was published by the Department of City Planning which determined that an Environmental Impact Report would be required. The EIR would be a "Subsequent" EIR to the San Francisco Executive Park Final EIR, which was certified by the City Planning Commission on August 12, 1976 (EE75.198).

September 9, 1983: A Draft Subsequent Environmental Impact Report for the Executive Park Development Plan Amendment was published by the Department of City Planning. A hearing on that Draft EIR was held October 9, 1983. Oral and written comments were received on the EIR; however, no formal Comments and Responses document was completed, nor was certification action taken by the City Planning Commission.

February and April 1984: Campeau Corporation California proposed addenda to the development plan that was the subject of the 1983 Draft EIR. Those addenda addressed concerns of the Department of City Planning pertaining to massing, site layout, amount of housing and parking, phasing, and design characteristics. These changes to the 1983 development plan resulted in the 1984 Development Plan Amendment.

April 12, 1984: The Office of Environmental Review, Department of City Planning determined that the revised Development Plan Amendment required a reissued Subsequent Draft EIR.

TABLE A-1: COMPARISON OF DEVELOPMENT PROPOSALS FOR THE EXECUTIVE PARK SITE - TOTAL FLOOR AREA IN SQ. FT.

	1976 EIR	1978 Yerby Development Plan	1978 Yerby Development Plan including 1980 and 1981 Amendments/a/	1983 and 1984 Proposed Development Amendments/b/	Total Floor Area of Full Buildout of 1984 Revised Development Plan/c/	Net Increment of Total Floor Area Between Full Buildout of 1984 Revised Development Plan and Full Buildout of Approved 1981 Development Plan (% Increase)
Office	863,000	740,000	839,000	1,150,000	1,644,000	+805,000 (+96%)
Hotel/ Convention (rooms)	174,000 (275)	340,000 (500)	239,000 (420)	234,000 (350)	234,000 (350)	- 5,000 (-70) (-2%) (-17%)
Retail/ Restaurant	75,400	33,000	33,000	45,000	50,000	+17,000 (+52%)
Housing (units)	0	0	0	425,000 (500)/(600)	425,000	+425,000 (+500)/(+600) (n/a)
TOTAL FLOOR AREA	1,112,000	1,113,000	1,111,000	1,854,000	2,353,000	+1,242,000 (+112%)
Total Parking (spaces)	3,895	2,255	2,475	3,900	5,268	+2,793 (+113%)

/a/ No change in square footage between the 1980 and 1981 approved plans; the second amendment consisted of design changes.
 /b/ No change in square footage between the 1983 and 1984 proposed amendments; the difference consisted of design changes.
 /c/ Total development plan if the proposed 1984 Amendment is approved would be 1,854,000 sq. ft. (exclusive of parking). Total includes OB 1 - OB 4 and the Alana Way restaurant.

SOURCE: Department of City Planning and Environmental Science Associates.

TABLE A-2: COMPARISON OF FULL BUILDOUT OF CURRENT EXECUTIVE PARK DEVELOPMENT PLAN TO FULL BUILDOUT OF THE "YERBY" DEVELOPMENT PLAN (as amended in 1980 and 1981)*

<u>Impact Category</u>	<u>Full Buildout of Current Executive Park Development Plan</u>	<u>Full Buildout of "Yerby" Development Plan</u>
Total Gross Floor Area**	2,353,000	1,111,000
Jobs	6,440	3,400
P.M. Peak Hour Vehicle Trips (External)	2,450	950
Level of Service on US 101 With Local and Regional Cumulative (P.M. SB)	D to E	D to E
Excavation (Total cu. yds.)	1.0 million	1.1 million
Carbon Monoxide (CO) Concentrations	No violations	No violations
Noise Levels	One dBA increase or less	Similar, but fewer sensitive receptors (housing) on site.
Energy (Billion Btu, at source)	550	265
Ecology	Landscaping Plan would include hydroseeding; hillside planting; if feasible, replacement of rare and endangered species on site; and hillside trails.	Similar, but less thoroughly studied landscaping plan; no consideration of rare and endangered species; and no hillside trails proposed.
Wind Speeds	No effect, or decrease of winds on the hillside, Little Hollywood, Candlestick Park Stadium and Candlestick Point State Recreation Area.	Similar except for slight increase over project winds in area of the Town Center; and slight decrease at the Candlestick Point State Recreation Area.

* Full buildout of each plan includes OB 1 - OB 4 and the Alana Way restaurant.

** See Table A-1, p. A-4 for a breakdown of total gross floor area by use.

SOURCE: Environmental Science Associates, Inc.

APPENDIX B: FINAL INITIAL STUDY, September 29, 1982*

*The currently proposed project differs from the development that was analyzed in this Initial Study; see p. 3 for a detailed description of these differences. Potential effects that were found in the Initial Study to be insignificant for the previous proposal remain so for the current project, except possibly for shadows, which are being evaluated.

APPENDIX B: INITIAL STUDY

INITIAL STUDY
SAN FRANCISCO EXECUTIVE PARK
82.197E

I. INTRODUCTION

The Environmental Impact Report (EIR) for San Francisco Executive Park Master Plan was certified on August 12, 1976 (E75.198, City Planning Commission Resolution 7547). Two buildings have been constructed, a third has been approved and a fourth is in the planning stages as part of the original Master Plan proposal. The original proposal included 853,000 sq. ft. office area, 140,000 sq. ft. of convention/restaurant/retail area, a 118,000 sq. ft. hotel and 3,900 parking spaces, for a total commercial development of 1.1 million sq. ft. (exclusive of parking area). Because of changes in design (including additional office square footage and the introduction of housing) and in setting conditions, the San Francisco Department of City Planning's (DCP) Office of Environmental Review (OER) has determined that a new environmental evaluation is required for the project.

II. PROJECT DESCRIPTION

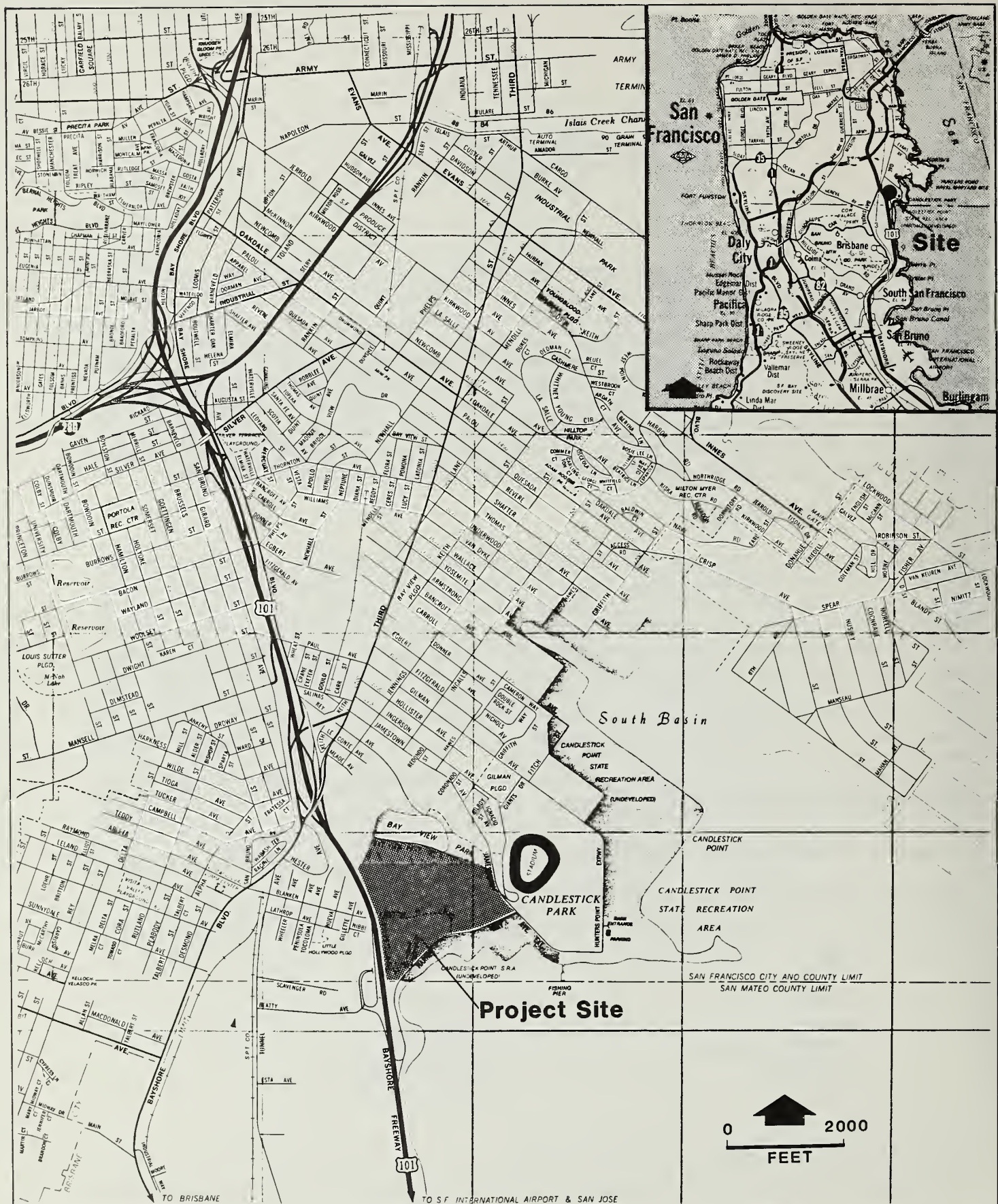
The proposed project consists of a mixed-use development including office, residential, retail, commercial (hotel and restaurant) and parking, on a 52-acre site in Assessor's Block 4991, Lot 82. The site is in a C-2 (Community Business) Use District and 230-G and 40-X Height and Bulk Districts. The site is located south of Bayview Hill and Park and east of U.S. 101 (see Figure 1, p. A-8). Candlestick Park is east of the site, and the Bay, and an undeveloped State park (Candlestick Point State Recreation Area) are to the south. The Bayview Hunter's Point residential area is located north of the site beyond Bayview Hill (also known as Candlestick Hill). The Little Hollywood residential area is located west across U.S. 101 from the site. Southwest of the site, across U.S. 101, is the site of the proposed Resource Recovery Facility in Brisbane.

The project would contain the following uses:

TABLE 1: PROPOSED USES BY GROSS SQUARE FEET/UNITS

<u>Use</u>	<u>Amount</u>
office	1.2 million sq. ft.
hotel	230,000 sq. ft.
retail/restaurant	50,000 sq. ft.
residential	up to 500 units
parking	4,300 spaces

SOURCE: Hellmuth, Obata and Kassabaum, Inc.



SOURCE: Reproduced by permission of
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FIGURE 1: Site Location Map

Four buildings have been approved under the previous Master Plan and Master Plan EIR. Two office buildings (known as OB 1 and 2) have been completed between the site and the Bay and a third building (OB 3) has received approvals and permits. A fourth (OB 4) is planned for construction. These four buildings are part of the original San Francisco Executive Park proposal approved in 1976 and are not part of the present project. For the purposes of environmental evaluation, the existing buildings, OB 1 and 2, will be considered part of the setting, and OB 3 and 4 will be considered as impacts of cumulative development on the project site.

The proposal would construct office uses above ground-floor parking levels and residential units above offices on the northwest portion of the site. Office uses would be situated on the mid-west portion of the site facing Executive Park Blvd., and residential uses would be constructed on the eastern portion of the site. A hotel use would be located at the end of Thomas Mellon Dr. The project would include a restaurant located on the hillside, accessible via a funicular (tramway) from the hotel, overlooking the other portions of the development with a view of the Bay. Figure 2, p. A-10, is a site plan of the project which shows locations of proposed uses and the locations of buildings OB 1-4. Proposed office and office/residential structures would range in height from 4 to 13 stories; hotel structure(s) would range up to about 19 stories. The design is conceptual and final architectural styles, facade materials and colors, detailed building massing and landscape plans would be developed in consultation with the Department of City Planning as a condition of approval of the proposed Master Plan. The exact number, type and projected sale prices of residential units also have not been determined. The project would be constructed in about 8 phases, with a 2-year completion period per phase.

The project sponsor is Campeau Corporation California; the project architect is Hellmuth, Obata and Kassabaum, Inc., San Francisco.

III. SUMMARY OF FINDINGS

The following items have been determined to have environmental effects which would not be significant:

Relocation of Residents or Businesses. The site is vacant and no residents or businesses would be displaced by the project.

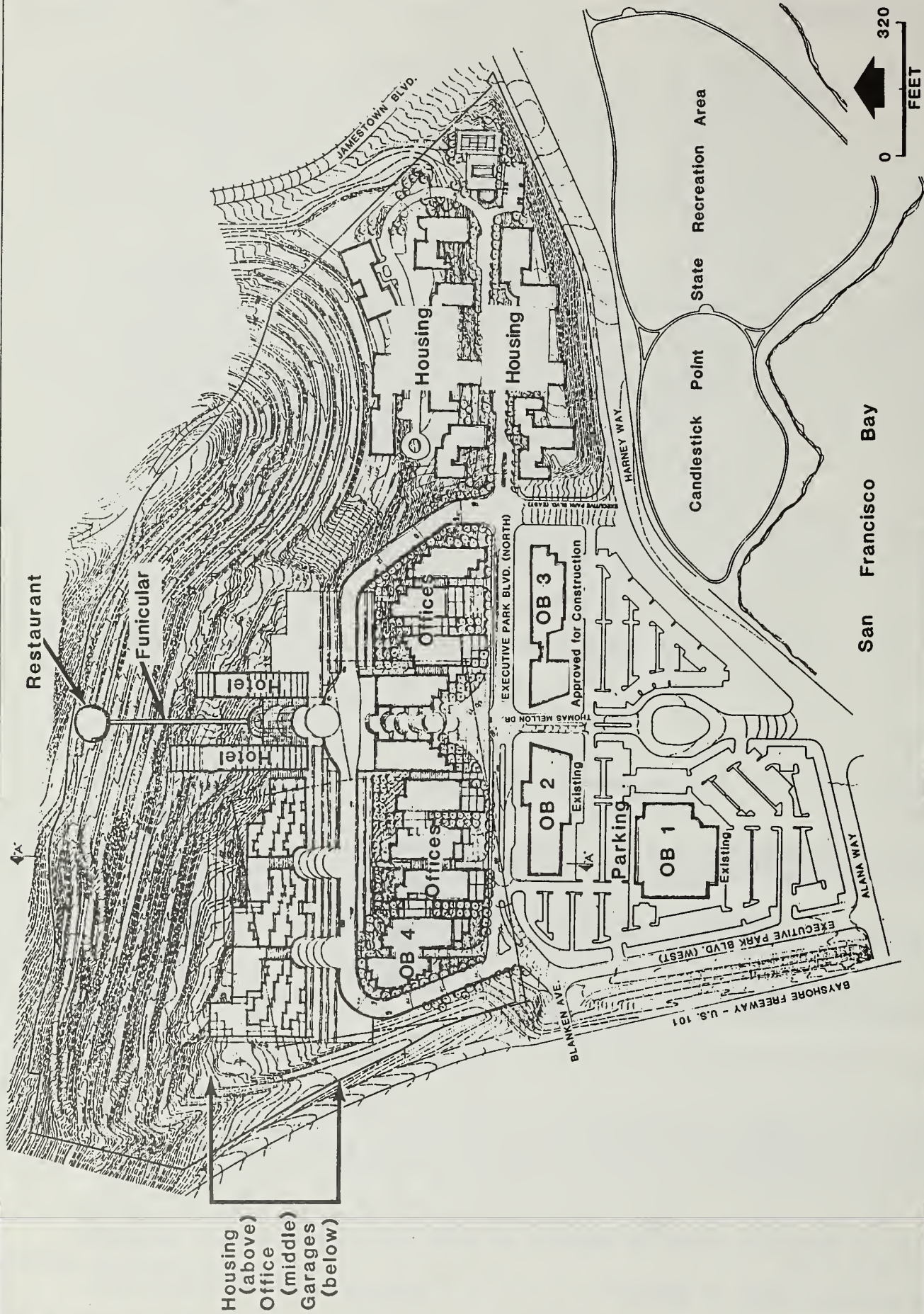
Airport Noise. Noise levels generated by air traffic from the San Francisco Airport would be below recommended levels for office and residential uses.

Construction Noise. Construction noise would not impact other uses because of the site's physical separation from sensitive receptors.

Shadows. The project would not result in new shadows on public open space.

Fire. The Fire Department indicates that it would have adequate capacity to serve the proposed project. Additional equipment and personnel may be required to serve the project area if additional development should occur. See mitigation measure on p. A-20 to reduce the need for Fire Department staff and equipment to serve the project site.

Police. At this time, the Police Department cannot determine whether additional personnel or equipment would be required to serve the project site (see mitigation measure on p. A-20).



The placement of structures is conceptual and does not indicate exact locations of proposed buildings.

SOURCE: Hellmuth/Obata/Kassabaum, Inc.

FIGURE 2: Site Plan

Schools. The San Francisco Unified School District has the schoolroom capacity to serve additional children from the development.

Electric/Gas. Pacific Gas and Electric Company would have an adequate supply of energy to meet project demand without the need for additional power plants not already planned.

Communications Systems. Serving agencies have the capacity to serve the project.

Water. The existing water main located under Executive Park Blvd. would be extended to provide service to the project site. The Water Department indicates that this main would have adequate capacity to serve the project at full buildout.

Sewer. New lines or an augmented sewer line system would need to be installed to serve the project. The Department of Public Works indicates that the existing sanitary sewer system on Harney Way and the Southeast Wastewater Treatment Plant have adequate capacity to serve the site.

Solid Waste Collection and Disposal. The Sunset Scavenger Company would be able to collect wastes from the project site; the fill site has the disposal capacity to accept wastes from the site.

Hazards. The project sponsor has agreed to a mitigation measure on pp. 210 to provide for an emergency plan to correspond to the City's plan.

Historic/Archaeologic. An archaeological reconnaissance of the site was undertaken by Miley Paul Holman in 1976 (included as part of the original San Francisco Executive Park EIR, certified August 12, 1976, on file with the Department of City Planning). No surface indications of archaeological remains on or near the site were found. The project would not affect a known archaeological resource; no historic structures are located on the site. The project sponsor has agreed to the mitigation measure on p. A-20 in the event archaeological resources are discovered during project construction.

POTENTIAL ENVIRONMENTAL EFFECTS

The project potentially could have significant environmental effects in the following areas, and these will be included in the EIR on the project: land use compatibility, project effects on Candlestick State Park and Candlestick Hill open space, urban design, visual effects, wind, population, employment, housing, transportation, circulation (including cumulative effects), effects of freeway noise on the project uses, air quality, geology, seismicity and hydrology, energy use, biology, and growth induction.

III. INITIAL STUDY CHECKLIST

A. GENERAL CONSIDERATIONS

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
1. Would the project conflict with objectives and policies in the Comprehensive Plan (Master Plan) of the City?	—	<u>X</u>	—	—	—
2. Would the project require a variance, or other special authorization under the City Planning Code?	<u>X</u>	—	—	—	<u>X</u>

XIII. Appendices

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
3. Would the project require approval of permits from City Departments other than DCP or BBI, or from Regional, State or Federal Agencies?	—	—	<u>X</u>	—	—
4. Would the project conflict with adopted environmental plans and goals?	—	<u>X</u>	—	—	<u>X</u>

The relationship of the project to the Comprehensive Plan will be evaluated in the EIR.

The project may be subject to Discretionary Review by the City Planning Commission. The project would require a rezoning from the 40-X Height and Bulk District.

B. ENVIRONMENTAL IMPACTS

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
1. <u>Land Use.</u> Would the proposed project:					
a. Be different from surrounding land uses?	<u>X</u>	—	—	—	—
b. Disrupt or divide the physical arrangement of an established community?	—	<u>X</u>	—	—	—

The EIR will discuss the relationship of the proposed land uses in the project to existing surrounding land uses, and the potential land use effects of the project on existing uses, including Candlestick Hill open space, Candlestick State Park, and the Bayview Hunter's Point and Little Hollywood residential areas.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
2. <u>Visual Quality and Urban Design.</u> Would the proposed project:					
a. Obstruct or degrade any scenic view or vista open to the public?	—	<u>X</u>	—	—	—
b. Reduce or obstruct views from adjacent or nearby buildings?	—	—	<u>X</u>	—	—
c. Create a negative aesthetic effect?	—	<u>X</u>	—	—	—
d. Generate light or glare affecting other properties?	—	<u>X</u>	—	—	—

The project would result in a change in the appearance of the project site, which is now primarily heavily disturbed open space. The project would be visible from U.S. 101 and from Bayview Park and Candlestick Point State Recreation Area, but views of the site from other locations may be partially or totally blocked by the elevated freeway or landforms. There are no buildings immediately adjacent to the project site. The architectural style has not been determined. The EIR will discuss the visibility and appearance of the project and will analyze potential view blockage from neighborhoods.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
3. <u>Population/Employment/Housing.</u> Would the proposed project:					
a. Alter the density of the area population?	<u>X</u>	—	—	—	—
b. Have a growth-inducing effect?	<u>X</u>	—	—	—	—
c. Require relocation of housing or businesses, with a displacement of people, in order to clear the site?	—	—	<u>X</u>	—	—
d. Create or eliminate jobs during construction and operation and maintenance of the project?	<u>X</u>	—	—	—	—
e. Create an additional demand for housing in San Francisco?	—	<u>X</u>	—	—	—

The EIR will discuss population, employment, housing, and growth-inducing effects of the project. The site is vacant and no jobs or residents would be displaced by the project.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
4. <u>Transportation/Circulation.</u> Would the construction or operation of the project result in:					
a. Change in use of existing transportation systems?	<u>X</u>	—	—	—	—
b. An increase in traffic which is substantial in relation to existing loads and street capacity?	—	<u>X</u>	—	—	—
c. Effect on existing parking facilities, or demand for new parking?	—	<u>X</u>	—	—	<u>X</u>
d. Alteration to current patterns of circulation or movement of people and/or goods?	<u>X</u>	—	—	—	—
e. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	—	<u>X</u>	—	—	—
f. A need for maintenance or improvement or change in configuration of existing public roads or facilities?	—	<u>X</u>	—	—	—
g. Construction of new public roads?	—	<u>X</u>	—	—	—

The transportation and circulation effects of the project will be analyzed in the EIR and will include pedestrian and vehicular traffic and transit demand generated by the project in relation to existing conditions, capacity and service levels on local streets, freeways and transit systems, including peak hour demands and the influence of Candlestick Park

traffic. The proposed interior roadway system will be described and analyzed. The project would include parking facilities and the proposed supply will be compared to the projected demand. Effects of cumulative development, including the project, will be analyzed for the above topics.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
5. <u>Noise.</u>					
a. Would the proposed project result in generation of noise levels in excess of those currently existing in the area?	<u>X</u>	<u> </u>	<u> </u>	<u> </u>	<u>X</u>
b. Would existing noise levels impact the proposed use?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>	<u>X</u>
c. Are Title 25 Noise Insulation Standards applicable?	<u>X</u>	<u> </u>	<u> </u>	<u> </u>	<u>X</u>

Construction activities, including excavation, grading, foundation preparation, steel erection and finishing would generate higher noise levels at the site than currently exist. Pile driving would not be required for foundations (Jack Ritter, Vice President, Williams and Burrows General Contractors, written communication, September 6, 1982). Because the site is physically separated from potentially noise sensitive land uses (residences), project-related construction noise would not adversely affect these land uses during construction phases.

After project completion, increased noise levels would be associated primarily with increased vehicle traffic at the site. Airport noise would not be expected to affect the project. The Airport Noise Abatement Control Center takes noise readings in various locations to monitor noise from the airport. The closest reading to the project site is recorded in Brisbane with the highest (exterior) reading for the month of June at 59 dB Ldn within a 24-hour period. Interior noise levels from this reading would be reduced by 15-20 dBA with closed windows (FHWA, February 8, 1972, Policy and Procedure Memorandum 90-2; and May, D.N., 1978, Handbook of Noise Assessment). Readings are weighted by a factor of 3 between the hours of 7 p.m. to 10 p.m. and by a factor of 10 between the hours of 10 p.m. to 7 a.m. Noise readings at the project site from airport sources would be lower than the reading at Brisbane (Louis Gouygou, Noise Abatement Technician, San Francisco International Airport, telephone communication, July 14, 1982). The maximum noise level allowed by State law for airport noise is 70 dB; the Environmental Protection Element of the San Francisco Comprehensive Plan allows a maximum of 60 dB for residential use of land and 65 dB for office uses without any special provisions for noise abatement in construction.

Noise from traffic on U.S. 101 dominates the noise environment near the freeway; project residences could be affected by this noise unless separated by structures or distance. While the majority of housing is proposed at some distance from the freeway, some units would be located near the freeway. Effects of freeway noise on these units will be analyzed in the EIR. Title 25 requires that interior noise levels for residences not exceed 40 decibels (dB); this requirement would be applicable to the project.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
6. <u>Air Quality/Climate.</u> Would the proposed project result in:					
a. Violation of any ambient air quality standard or contribution to an existing air quality violation?	—	<u>X</u>	—	—	—
b. Exposure of sensitive receptors to air pollutants?	—	<u>X</u>	—	—	—
c. Creation of objectionable odors?	—	—	<u>X</u>	—	—
d. Burning of any materials including brush, trees, or construction materials?	—	—	<u>X</u>	—	—
e. Alteration of wind, moisture or temperature (including sun shading effects), or any change in climate, either locally or regionally?	—	<u>X</u>	—	—	—

Air quality effects from project-related construction and traffic will be analyzed in the EIR. A model of the project will be tested in a wind tunnel and the results presented in the EIR.

The project would not cast any shadows on existing buildings or public open space.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
7. <u>Utilities and Public Services.</u> Would the proposed project have an effect upon, or result in a need for new or altered, governmental services in any of the following?					
fire protection	—	—	<u>X</u>	—	<u>X</u>
police protection	—	—	<u>X</u>	—	<u>X</u>
schools	—	—	<u>X</u>	—	<u>X</u>
parks or other recreational facilities	—	—	<u>X</u>	—	—
maintenance of public facilities	—	<u>X</u>	—	—	<u>X</u>
power or natural gas	<u>X</u>	—	—	—	<u>X</u>
communications systems	<u>X</u>	—	—	—	<u>X</u>
water	<u>X</u>	—	—	—	<u>X</u>
sewer/storm water drainage	<u>X</u>	—	—	—	<u>X</u>
solid waste collection and disposal	<u>X</u>	—	—	—	<u>X</u>

Fire flows at the site are adequate to serve the existing site. Response time to the site is about 2.5 minutes from Fire Station 44, located at 1298 Girard Street. The project would incorporate all emergency response systems stipulated by the Life Safety Code including fire alarms, an automatic sprinkler system, an emergency communication system, an emergency power supply and an on-site emergency water supply. These measures would reduce hazards to building occupants during an earthquake or fire. An additional aerial ladder company and crew may be needed if additional development were proposed in this area. The project itself would not generate a need for additional personnel

or equipment in order to serve the site (Cornelius Murphy, Chief, San Francisco Fire Department, written communication, August 2, 1982). See mitigation measure on p. A-20.

The site is in the San Francisco Police Department's Potrero District. The site has a low crime rate compared to the Potrero District and to the City as a whole. Response time is 3 minutes for high priority calls (robbery, rape and assault in progress). At this time, the Police Department cannot determine what effect the project would have on its operations. The effect would be primarily determined by the amount of development in each phase and conditions in effect at that time (Sergeant Libert, Planning and Research Division, San Francisco Police Department, telephone communication, July 26, 1982 and written communication July 21, 1982). The project would incorporate mitigation measures to reduce the need for additional police services to serve the site (see p. A-20).

The project would include housing and thus probably would have some school age children as residents. San Francisco public schools have experienced declining enrollments over the past several years and could accommodate an increase in school age children from the project (San Francisco Unified School District, Proposal for Leasing and Selling Vacant Property, April 29, 1980, pp. 28-29).

Residents and employees at the project would increase the demand for recreation space. Bayview Park and Candlestick Hill are located just north of the site. Increased usage of Candlestick Hill by project residents would increase the potential for grass fires and erosion. Recreational facilities would probably be included in residential structures, although no formal plans exist at present. A State recreation area (Candlestick Point State Recreation Area) is located to the east of the project site. Increased demand for recreational facilities by project workers and residents will be discussed in the EIR.

The increased traffic volumes generated by the project would result in additional wear on local roadways. If streets and street lights within the development were dedicated to the City, the City would be responsible for their maintenance.

Utility and public service facilities to provide gas, electricity, telephones, water and sewers would be installed to serve the project. The facilities would meet all applicable codes; utilities would be installed underground.

In order to serve the project, gas and electricity lines would have to be extended to structures from present mains which are located under Executive Park Blvd. PG&E has projected energy demands in its service area (which includes the Bay region) 20 years in the future, based on land use patterns and market activity. According to PG&E projections, it will have adequate supply of energy to meet the demand without the need for additional power plants not already planned (Hudson Martin, Supervisor, Energy Economics, Economics and Statistics Department, PG&E, telephone communication, May 27, 1982).

Pacific Telephone and Telegraph Co. previously installed adequate facilities to supply the office, retail and hotel area approved in the previous San Francisco Executive Park Master Plan. Because of the additional office floor area and the introduction of residential uses now proposed, additional work may be required on Blanken Ave. near

Bayshore Rd. and near Executive Park Blvd., but excavation would not be required along the length of the street between these two points (Joseph Richards, Outside Plan Engineer, Pacific Telephone and Telegraph, telephone communication, July 21, 1982).

Water demand is projected to be roughly 140,000 gallons per day. New lines would have to be added to proposed buildings from the existing water main located under Executive Park Blvd. This main is large enough to meet the projected demand (Cy Wentworth, Estimator, San Francisco Water Department, telephone communication, August 20, 1982).

The project site has two separate sewer systems, sanitary sewers and storm sewers. The storm sewers are sized to accommodate storm runoff from the site. There are 12-inch sanitary sewers that exist in the developed areas of the site. New sanitary facilities would have to be connected to the existing system or an entirely new system would have to be constructed and connected to the 2'6" x 3'9" interceptor sewer under Harney Way in order to accommodate the proposed structures. The existing sanitary system already connects to the Harney Way interceptor system. Average wastewater generation is projected to be roughly 110,000 gallons per day. The Southeast Wastewater Treatment Plant located on Jerrold Ave. between Phelps and Quint Sts. receives flows from the site. This plant has the capacity to accept projected flows from the project. (J.M. dela Cruz, San Francisco Department of Public Works, written communication, August 25, 1982).

The Sunset Scavenger Company, in collaboration with Solid Waste Engineering, provides solid waste collection and disposal services to the site. Wastes are currently disposed of at a fill site in Mountain View; the contract for this site expires in 1983. Arrangements are being finalized for a 5-year contract on a site in Altamont. Solid waste generation from the project is projected to be 8.6 tons per day at full buildout. The company could provide service to the site; access to the site is adequate for collection trucks. The company recommends installation of trash compactors whenever possible (Leo Maionchi, Manager, Solid Waste Engineering, telephone communication, July 23, 1982).

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
8. <u>Biology.</u>					
a. Would there be a reduction in plant and/or animal habitat or interference with the movement of migratory fish or wildlife species?	—	<u>X</u>	—	—	<u>X</u>
b. Would the project affect the existence or habitat of any rare, endangered or unique species located on or near the site?	—	<u>X</u>	—	—	—
c. Would the project require removal of mature scenic trees?	—	—	<u>X</u>	—	—

The EIR will discuss the biological conditions of the site including, any rare or endangered species of plant or wildlife that exist on the site, what habitat would be removed, and landscaping proposed as part of the project.

XIII. Appendices

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
9. <u>Land.</u> (topography, soils, geology) Would the proposed project result in or be subject to:					
a. Potentially hazardous geologic or soils conditions on or immediately adjoining the site (slides, subsidence, erosion and liquefaction)?	<u>X</u>	—	—	—	—
b. Grading (consider height, steepness and visibility of proposed slopes; consider effect of grading on trees and ridge tops)?	<u>X</u>	—	—	—	—
c. Generation of substantial spoils during site preparation, grading, dredging or fill?	—	<u>X</u>	—	—	—

The EIR will discuss the geologic conditions of the site, soil characteristics, proposed grading plan, soil stability and the potential for erosion. The grading plan has not been completed at this time, and removed earth may be redistributed over the site or disposed of at an offsite location.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
10. <u>Water.</u> Would the proposed project result in:					
a. Reduction in the quality of surface water?	—	<u>X</u>	—	—	—
b. Change in runoff or alteration to drainage patterns?	<u>X</u>	—	—	—	—
c. Change in water use?	<u>X</u>	—	—	—	—
d. Change in quality of public water supply or in quality or quantity (dewatering) of groundwater?	—	<u>X</u>	—	—	—

Hydrologic aspects of the site and effects of the project will be analyzed in the EIR.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
11. <u>Energy/Natural Resources.</u> Would the proposed project result in:					
a. Any change in consumption of energy?	<u>X</u>	—	—	—	—
b. Substantial increase in demand on existing energy sources?	—	<u>X</u>	—	—	—
c. An effect on the potential use, extraction, conservation or depletion of a natural resource?	—	<u>X</u>	—	—	—

The project would represent an increase in energy consumption on the site. Projected energy consumption will be analyzed in the EIR; project-related consumption will be compared to PG&E's projected demand and supply.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
12. <u>Hazards.</u> Would the proposed project result in:					
a. Increased risk of explosion or release of hazardous substances (e.g., oil, pesticides, chemicals or radiation), in the event of an accident, or cause other dangers to public health and safety?	—	—	<u>X</u>	—	—
b. Creation of or exposure to a potential health hazard?	—	—	<u>X</u>	—	—
c. Possible interference with an emergency response plan or emergency evacuation plan?	—	—	<u>X</u>	—	<u>X</u>

No explosive or hazardous materials would be manufactured on the site, nor would any public health hazard due to project operation be expected. The sponsor has agreed to the mitigation measure on p. 210 of this Initial Study to reduce the effect of the project on the City in the event of a major disaster or emergency.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
13. <u>Cultural.</u> Would the proposed project:					
a. Include or affect an historic site, structure or building?	—	—	<u>X</u>	—	—
b. Include or affect a known archaeological resource or an area of archaeological resource potential?	—	<u>X</u>	—	—	<u>X</u>
c. Cause a physical change affecting unique ethnic or cultural values?	—	<u>X</u>	—	—	—

An archaeologic reconnaissance of the site and a records search revealed neither surface indications of archaeological remains or recorded archaeological resource on the site (Miley Paul Holman, Assistant Curator, Anthropology Museum, San Francisco State University, Report, March 23, 1976, published in the Final Environmental Impact Report, San Francisco Executive Park, EE 75.198, Certified August 12, 1976, Volume II, Appendices, p. 109). The potential exists for materials to be present on the site and to be uncovered during project construction. The project sponsor has agreed to the mitigation measure on p. 210 in this event.

Community and neighborhood groups and residents will be contacted to elicit their concerns about the potential effects of the project on existing neighborhoods.

C. MITIGATION MEASURES

	<u>Yes</u>	<u>No</u>	<u>Disc.</u>
Are mitigation measures included in the project?	<u>X</u>	—	<u>X</u>
Are other mitigation measures available	<u>X</u>	—	<u>X</u>

The following measures are proposed as part of the project:

Hazards

- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services (OES), to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project's plan would be reviewed by the OES and implemented by building management before issuance by the Department of Public Works of final building permits.

Cultural

- Should evidence of significant cultural or historic artifacts be found at the site during project excavation, the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board would be notified. The project sponsor would select an expert archaeologist to help the office of Environmental Review determine the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts. The Environmental Review Officer would then recommend specific mitigation measures, if necessary, and recommendations would be sent to the State Office of Historic Preservation. Excavation or construction which might damage the discovered cultural resources would be suspended for a maximum of four weeks to permit inspection, recommendation and retrieval, if appropriate.

Utilities and Public Services

- The project would provide internal security measures, such as security guards, well-lighted entries, alarm systems, and emergency communication systems, power supply and water supply for office uses to minimize the need for police and fire services and to reduce hazards to building occupants during an earthquake or fire. See also the mitigation measure above concerning hazards.
- The project design would incorporate low-flow faucet and toilet fixtures to reduce water consumption.

Other measures will be included in the EIR as appropriate.

D. ALTERNATIVES

	<u>Yes</u>	<u>No</u>	<u>Disc.</u>
Were other alternatives considered?	<u>X</u>	<u>—</u>	<u>X</u>

The following alternatives will be compared to the environmental effects of the proposed project in the EIR.

1. No project alternative, including use of the site for open space.
2. Development of the San Francisco Executive Park Master Plan approved in 1976.
3. No construction of buildings above the 100 foot elevation.

E. MANDATORY FINDINGS OF SIGNIFICANCE

	<u>Yes</u>	<u>No</u>	<u>Disc.</u>
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<u>X</u>	<u>—</u>	<u>—</u>
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<u>—</u>	<u>X</u>	<u>—</u>
3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable?	<u>X</u>	<u>—</u>	<u>—</u>
4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?	<u>—</u>	<u>X</u>	<u>—</u>
5. Is there a serious public controversy concerning the possible environmental effect of the project?	<u>—</u>	<u>X</u>	<u>X</u>

Public interest has been raised concerning development of this site.

On the basis of this initial evaluation:

- I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.
- I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.
- X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Passmore

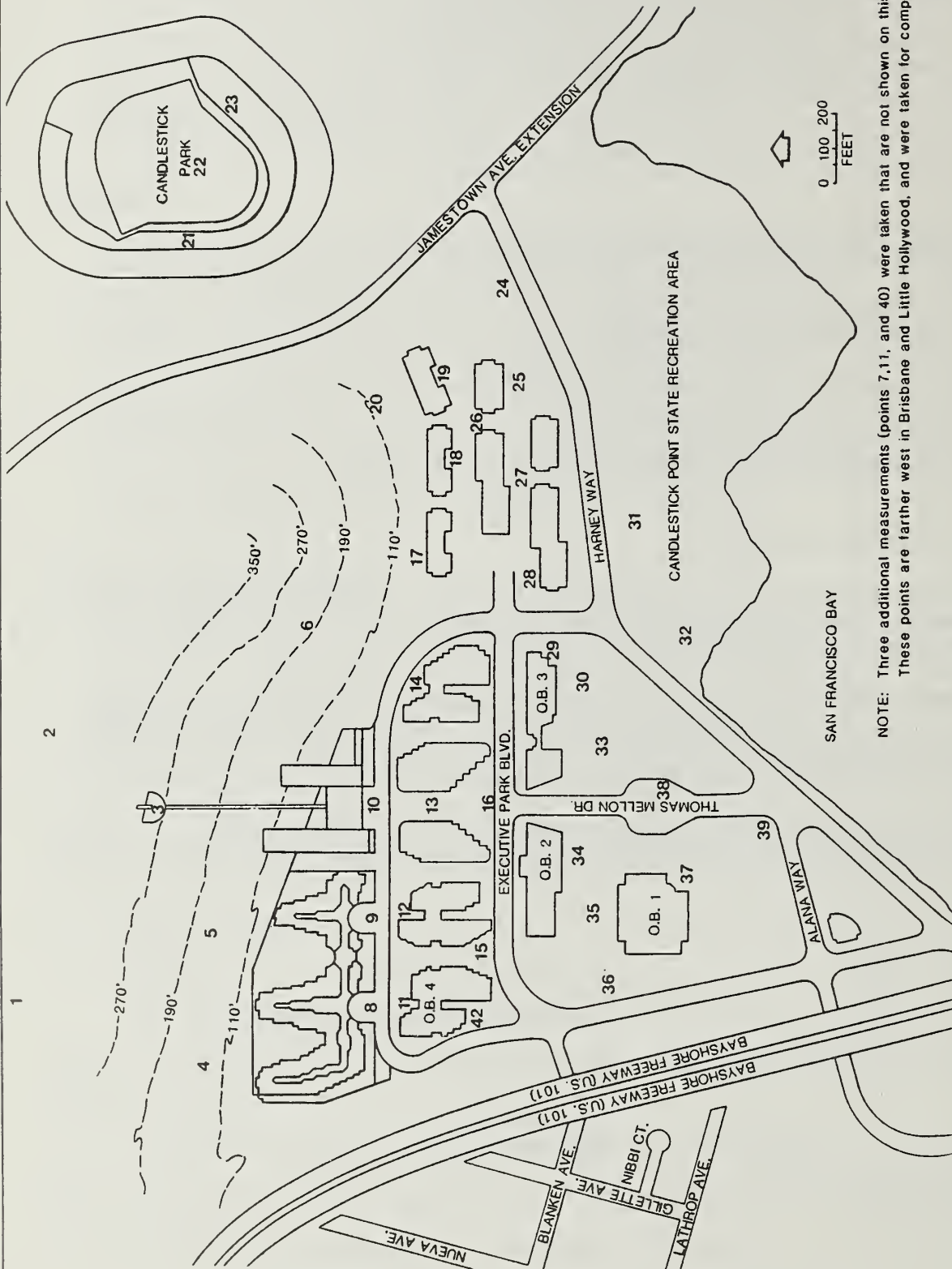
Robert W.

Assistant Director - Implementation

for

Dean Macris
Director

Date: _____



NOTE: The site plan shown above represents the previous 1983 development plan, which is no longer the proposed project (see discussion on pp. 1-5). The wind discussion has been revised to reflect the currently proposed project (see Figure 2, p. 26), although it is still based on the locations of the measurements shown in this Figure.

FIGURE C-1: LOCATION OF NEAR SURFACE WIND SPEED MEASUREMENTS

SOURCE
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.; AND
DR. BRUCE WHITE

APPENDIX D: TRANSPORTATION, CIRCULATION & PARKING (Environmental Science Associates)

EMPLOYEE QUESTIONNAIRE SURVEY AND RESULTS

A questionnaire survey of employees working at the Executive Park site was made by Environmental Science Associates, Inc. in October 1982./1/ The purpose of the survey was two fold; to obtain data concerning employee travel habits (methods of commuting, parking locations, midday travel, arrival and departure times) and to obtain socio-economic data (area of residence, household income and expenses, length of time at the site, hours per week worked, job categories). A copy of the questionnaire is shown in Figure D-1, p. A-24.

At the time of the survey, there were 485 employees at a total of 35 firms in the two buildings (OB1, OB2) on the Executive Park site. Eighty percent of the firms responded. The total return on the questionnaire was 177 (about 36% of the employees responded). About 60% of the employees in each responding firm responded to the questionnaire. The 36% response was determined to be sufficient to statistically represent the employee population on-site. The average number of employees per firm that responded (60%) was determined to be adequate to serve as a basis for the socio-economic projections (i.e., no class of employees was under-represented).

Several portions of the questionnaire data have been used to project future conditions. Two pieces of data used extensively in the transportation analysis are the residential distribution and method (mode) of travel. Table D-1, p. A-25, shows the reduced questionnaire data for residence and mode, summarized by seven regional areas for employees traveling during peak commute periods. Approximately 40% of the employees surveyed travelled at times other than peak commute periods.

Table D-2, p. A-26, shows the summarized data for mode of travel for all employees who travel during the peak period of 4:00 p.m. to 6:00 p.m. Seven percent (7%) of the employees commuting to the site use Muni. Three percent of the employees use A-C Transit and 3% of the employees use Golden Gate Transit. Very little evidence of employees using other transit agencies besides Muni was found in the results. No use of BART, SamTrans or Southern Pacific was reported. The A-C Transit and Golden Gate Transit users reached the site via a private employer-provided shuttle service from downtown transit terminals.

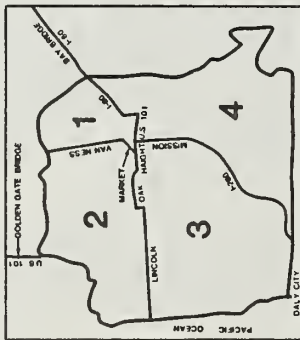
The largest number of employees (43%) were found to live on the Peninsula. San Francisco was the second largest area for employee residences (37%). Peninsula residents were shown to have the highest single-occupant auto use (98%).

Of the employees currently driving to the site, about 90% use their cars during the day for business or personal reasons. This may be attributed to the low intensity of development on-site. Between 15% and 20% of the current auto drivers indicated that they would consider using Muni, SamTrans, BART or SP if service were available to the Executive Park site. About 30% of the current auto drivers indicated that they would consider carpooling to the site.

In July, 1981, Campeau Corporation distributed an employee survey to the employees on the Executive Park site at that time./2/ The results from the survey, which had a 50% response rate from 80% of the twenty-five firms then on-site, are similar to the results

SAN FRANCISCO EXECUTIVE PARK EMPLOYEE SURVEY

1. Please check the space below which corresponds to the location of your office:
1. ☐ 5 Thomas Mellon Circle
2. ☐ 150 Executive Park Blvd.
2. Name of the company you work for?
3. Please check the space below which corresponds to the location of your residence:
San Francisco: (see map insert)
 1. ☐ Downtown/Northeast
 2. ☐ Northwest
 3. ☐ Southwest
 4. ☐ Southeast
 Alameda County:
 5. ☐ Berkeley, Oakland, Alameda, San Leandro, Hayward, Fremont Vicinity
 6. ☐ Pleasanton, Dublin, Livermore Vicinity
 Contra Costa County:
 7. ☐ San Ramon, Walnut Creek, Concord, Orinda, Lafayette, Pittsburg, Antioch, Richmond, Albany, San Pablo, Vicinity
 San Mateo County:
 9. ☐ Daly City, Pacifica, Half Moon Bay Vicinity
 10. ☐ So. San Francisco, Brisbane, Burlingame, San Mateo, Belmont Vicinity
 11. ☐ Santa Clara County
 12. ☐ Marin or Sonoma County
 13. ☐ Napa or Solano County
 14. ☐ Other (specify) _____



4. How many months have you worked at your current site of employment? []
5. Have you moved to a new residence since you began working at Executive Park?
1. ☐ No
2. ☐ Yes If yes, from which area did you move? (use response number - 1 to 14 - from Question 3) []
6. When do you usually arrive at and leave work? If you work an irregular schedule, that changes frequently, check box C.
 A. I arrive at [] : [] m
 B. I leave at [] : [] m
 C. I have an irregular work schedule []
 D. I work flextime;
 E. We are permitted to arrive from [] : [] a.m. until [] : [] a.m.
 F. We are permitted to leave from [] : [] p.m. until [] : [] p.m.
7. Usual method of transportation to and from work now? If you use more than one method on a daily basis, check each that applies. (Example: if you drive yourself to BART, take BART, ride MUNI, then check "Drive alone in a car", "BART" and MUNI"). If you use different methods different days of the week check the one(s) used the majority of the time.
 1. ☐ Drive alone in a car
 2. ☐ Ride in an organized carpool or vanpool of 3 or more
 3. ☐ Ride in a car
 4. ☐ MUNI
 5. ☐ BART
 6. ☐ Charter/Club Bus (Franciscan/Greyhound, etc.)
 7. ☐ AC Transit
 8. ☐ Southern Pacific
 9. ☐ Golden Gate Transit Bus
 10. ☐ Golden Gate Transit Ferry
 11. ☐ Motorcycle/motorbike
 12. ☐ Tiburon Ferry
 13. ☐ Bicycle
 14. ☐ Walk from home to work
 15. ☐ Walk from transit/carpool drop-off point to work
 16. ☐ Other (specify) _____

8. Would you consider using Muni to get to and from work if Muni were to expand service to your place of work from additional areas in San Francisco?
1. ☐ No
2. ☐ Yes
9. Would you consider using Samtrans to get to and from work if Samtrans were to expand service to your place of work?
1. ☐ No
2. ☐ Yes
10. Would you consider using either BART or SP to get to and from work if a shuttle ran to your place of work from a BART or SP station?
 BART 1. ☐ No 2. ☐ Yes
 SP 1. ☐ No 2. ☐ Yes
11. Would you consider carpooling if more people were available with similar travel patterns and time constraints?
1. ☐ No 2. ☐ Yes
12. During your working hours do you ever leave and return to your place of work during the same day, for business purposes or personal matters?
1. ☐ No 2. ☐ Yes
13. Does your household 1. ☐ own or 2. ☐ rent your present residence?
1. ☐ No 2. ☐ Yes
14. How much do the residents of your household spend each month for housing including rent or mortgage payments and utilities (excluding telephone), property taxes, insurance and home ownership fees?
 1. ☐ Under \$200
 2. ☐ \$200-\$399
 3. ☐ \$400-\$599
 4. ☐ \$600-\$799
 5. ☐ \$800-\$999
 6. ☐ \$1,000-\$1,249
 7. ☐ \$1,250-\$1,499
 8. ☐ \$1,500 and above
15. Including yourself, how many members of your household are employed? []
16. On the average, approximately how many hours per week do you work? []
17. Please check the occupational category that best describes what you do. If you perform two primary roles, one as a professional or technical worker and one as an administrator and manager, please check the professional category.
 1. ☐ Professional, technical. (accountant, scientist, lawyer)
 2. ☐ Manager or administrator. (bank officer, financial manager)
 3. ☐ Clerical or similar worker. (bank teller, counter clerk, bookkeeper)
 4. ☐ Crafts or similar work. (carpenter, printer, electrician)
 5. ☐ Operative or similar work. (Machine operator, delivery, attendant)
 6. ☐ Sales worker. (real estate agent or broker, sales clerk, insurance, stocks or bond seller)
 7. ☐ Service worker. (cleaner, janitor, waiter or waitress, watchman)
 8. ☐ Other labor (please specify). ()
18. Please check the box that most clearly represents your total 1981 before-tax household income? Include the income for all household members who contribute to expenses.
 1. ☐ less than \$11,999
 2. ☐ \$12,000-\$14,999
 3. ☐ \$15,000-\$24,999
 4. ☐ \$25,000-\$49,999
 5. ☐ \$50,000-74,999
 6. ☐ \$75,000-99,999
 7. ☐ \$100,000 and above

**FIGURE D-1: EXECUTIVE PARK
EMPLOYEE SURVEY QUESTIONNAIRE**

TABLE D-1: RESIDENTIAL DISTRIBUTION AND MODAL SPLIT FOR EXECUTIVE PARK EMPLOYEES

<u>Geographic Area</u>	<u>Percent of Responses/a/</u>	<u>Travel Mode</u>	<u>Percent of Responses/b/</u>
<u>San Francisco</u>			
Downtown/Northeast (East of Van Ness, North of Market to the Embarcadero, South of Market to 101)	4	Drive alone Ride w/one other Muni	50 25 25
Northwest (Richmond, Marina, Western Addition)	11	Drive alone Ride w/one other Carpool (3+) Muni	75 8 8 9
Southwest (Sunset, Parkside, Ingleside, Excelsior, Twin Peaks, and Upper Market)	13	Drive alone Muni	93 7
Southeast (Potrero Hill, Bayview, Hunters Point, East and South of 101)	9	Drive alone Muni Bicycle	50 40 10
<u>Peninsula</u> (San Mateo and Santa Clara Counties)	43	Drive alone Muni	98 2
<u>East Bay</u> (Alameda and Contra Costa Counties)	12	Drive alone Carpool (3+) AC	69 8 23
<u>North Bay</u> (Marin and Sonoma Counties)	8	Drive alone Carpool (3+) Golden Gate Transit	56 11 33

/a/ Percent of travel with origins or destinations in each geographic area.

/b/ Percent of travel in each geographic area using listed mode of travel.

SOURCE: Environmental Science Associates.

TABLE D-2: PEAK PERIOD TRAVEL MODE FOR EXECUTIVE PARK EMPLOYEES

<u>Mode of Travel</u>	<u>Percent Using</u>
Drive alone in an auto	81%
Ride with one other in an auto	2%
Ride in an organized carpool or vanpool of 3 or more	3%
Muni	7%
AC Transit	3%
Golden Gate Transit	3%
Bicycle	1%
	<u>100%</u>

SOURCE: Environmental Science Associates, Inc.

of the survey distributed by ESA in 1982 in that a large percentage (90%) of the responding employees drive to work and that most of the employees (80%) live either in San Francisco or on the Peninsula. The 1981 survey found that 43% of the employees lived in San Francisco and 35% lived on the Peninsula. In contrast, the 1982 survey found that 43% of the current employees live on the Peninsula and 37% live in San Francisco.

The 1981 survey found that 3% of the employees used Muni to travel to and from the site. Muni use increased to 7% in the 1982 survey. About 7% of the 1981 employees travelled in carpools (3%) or vanpools (4%). Higher-occupancy vehicle use over the entire workday increased to 8% in the 1982 survey with 6% in carpools and 2% in vanpools. About 25% of the 1981 auto drivers indicated that they would consider ridesharing (carpool/vanpool) to the site, whereas about 30% of the 1982 auto drivers so indicated.

TRIP GENERATION

Trip generation references were researched to determine the appropriate rates for the proposed project land uses. The standard rates report travel in vehicle trip-ends because trip generation data collection usually consists of placing automatic counters on driveways to count vehicular traffic entering and exiting a study site. These counts isolate (cordon) the site and include traffic to and from the site only. These studies are usually done in areas outside of the central business district of larger cities, since it would be difficult to isolate traffic traveling to or from specific sites in downtown areas. Travel to and from the study sites by other modes (walking, transit) is generally considered minimal. Vehicle occupancy (persons per vehicle) data is usually collected as well.

In the case of the project, where it is suspected or known that not all of the travel to or from the project site would occur in vehicles, it is necessary to generate travel on a person trip-end basis (a trip by a person to or from the site) and then to distribute the travel to appropriate modes (vehicles, transit, walking, etc.). Given the vehicle trip rate and the vehicle occupancy, one can estimate the person trip rate by multiplying the

vehicle trip rate by the number of persons per vehicle (vehicle occupancy). This process was used to determine the person trip rates for the project land uses.

As mentioned above, the trip rates are for specific land uses on isolated sites. In mixed-use developments similar to the project, travel occurs among land uses within the project site. Thus, only a portion of the total travel generated actually enters or leaves the project site. Also, when the trip generation rates are applied to all the land uses in a mixed-use development, the travel among the uses is double-counted. An example of this would be a trip between an office and a restaurant. On the site, the trip generation rates would count this as two trips because it is included in both the office and restaurant rates, whereas only one trip would actually be made.

To compensate for these double-counting effects, an estimate was made of travel internal to the site. Office travel and residential travel were categorized by purpose (home-to-work, shopping, etc.) on the basis of published standards.^{/3/} The amount of internal travel for each trip purpose was estimated and travel between corresponding residential and office purposes (i.e. home-to-work) was counted only once.

ACCURACY OF PROJECTIONS

The accuracy of traffic projections is limited by the accumulated accuracy of the individual components. Essentially, the uncertainty in each component compounds, making the overall analysis as accurate as the least reliable component of the analysis. The base data, which are collected as a series of counts on individual days rather than being an annual average, are subject to seasonal variations (i.e., more people take vacations during summer months, shopping travel is highest between Thanksgiving and Christmas, fewer people walk when it rains) as well as economic variations that might result from changes in the cost of gasoline, transit fares, and parking costs. The forecast information is based upon trip generation, modal split, and trip assignments data that are available for existing conditions. The projections do not assume any deviation from existing patterns. As travel patterns tend to be influenced by a variety of factors, including congestion (i.e., each traveler tries to find the optimum method of travelling to and from work), cost, choice of residence location, and individual preferences, the results of the transportation analysis do not reflect possible redistribution of existing travel patterns. Possible changes in traffic patterns have not been incorporated into the analyses because no reliable method exists to predict the individual choices that would aggregate into future travel patterns.

INTERSECTION ANALYSIS

The capacity analysis of each intersection at which a turning movement count was made utilized the "critical lane" method. This method of capacity calculation is a summation of maximum conflicting approach lane volumes that gives the capacity of an intersection in vehicles per hour per lane. (This method is explained in detail in an article entitled "Intersection Capacity Measurement Through Critical Movement Summations: A Planning Tool," by Henry B. McInerney and Stephen G. Peterson, January 1971, Traffic Engineering. This method is also explained in "Interim Materials on Highway Capacity", Transportation Research Circular No. 212, Transportation Research Board, January 1980). The maximum service volume for Level of Service E was assumed as intersection capacity. A service volume is the maximum number of vehicles that can pass an intersection during a specified time period in which operating conditions are maintained

corresponding to the selected and specified Level of Service (see Table D-3, p. 29). For each intersection analyzed, the existing peak-hour volume was computed and a volume-to-capacity (V/C) ratio was calculated by dividing the existing volume by the capacity at Level of Service E.

NOTES - Appendix D

/1/ Questionnaire distributed to Executive Park employees in October, 1982 by Environmental Sciences Associates. Results are on file with the Office of Environmental Review, 450 McAllister St., Fifth Floor.

/2/ Campeau Corporation California, Traffic/Housing Survey Results, July 27, 1981.

/3/ Trip purpose data for residential uses is from Transportation and Traffic Engineering Handbook, Second Edition, ITE, 1982. Trip purpose data for office trips is from Urban Travel Patterns for Hospitals, Universities, Office Buildings, and Capitols, Report No. 62, National Cooperative Highway Research Program.

TABLE D-3: VEHICULAR LEVELS OF SERVICE AT SIGNALIZED INTERSECTIONS

<u>Level of Service</u>	<u>Description</u>	<u>Volume/Capacity (v/c) Ratio/a/</u>
A	Level of Service A describes a condition where the approach to an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. No vehicles wait longer than one red traffic signal indication. The traffic operation can generally be described as excellent.	0.00-0.60
B	Level of Service B describes a condition where the approach to an intersection is occasionally fully utilized and some delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can be generally described as very good.	0.61-0.70
C	Level of Service C describes a condition where the approach to an intersection is often fully utilized and back-ups may occur behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so. The driver occasionally may have to wait more than one red traffic signal indication. The traffic operation can generally be described as good.	0.71-0.80
D	Level of Service D describes a condition of increasing restriction causing substantial delays and queues of vehicles on approaches to the intersection during short times within the peak period. However, there are enough signal cycles with lower demand such that queues are periodically cleared, thus preventing excessive back-ups. The traffic operation can generally be described as fair.	0.81-0.90
E	Capacity occurs at Level of Service E. It represents the most vehicles that any particular intersection can accommodate. At capacity there may be long queues of vehicles waiting up-stream of the intersection and vehicles may be delayed up to several signal cycles. The traffic operation can generally be described as poor.	0.91-1.00
F	Level of Service F represents a jammed condition. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration. Hence, volumes of vehicles passing through the intersection vary from signal cycle to signal cycle. Because of the jammed condition, this volume would be less than capacity.	1.01+

/a/ Capacity is defined as Level of Service E.

SOURCE: San Francisco Department of Public Works, Traffic Division, Bureau of Engineering from Highway Capacity Manual, Highway Research Board, 1965.

TABLE D-4: TRAFFIC LEVELS OF SERVICE FOR FREEWAYS

Level of Service	Description	Volume/Capacity (v/c) Ratio/a/
A	Level of Service A describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions. There is little or no restriction in maneuverability due to the presence of other vehicles, and drivers can maintain their desired speeds with little or no delay.	less than 0.60
B	Level of Service B is in the higher speed range of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation. Reductions in speed are not unreasonable, with a low probability of traffic flow being restricted.	0.61-0.70
C	Level of Service C is still in the zone of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most of the drivers are restricted in their freedom to select their own speed, change lanes, or pass. A relatively satisfactory operating speed is still obtained.	0.71-0.80
D	Level of Service D approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volume and temporary restrictions to flow may cause substantial drops in operating speeds. Drivers have little freedom to maneuver, and comfort and convenience are low, but conditions can be tolerated for short periods of time.	0.81-0.90
E	Level of Service E cannot be described by speed alone, but represents operations at even lower operating speeds (typically about 30 to 35 mph) than in Level D, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages of momentary duration.	0.91-1.00
F	Level of Service F describes forced flow operation at low speeds (less than 30 mph), in which the freeway acts as storage for queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion. In the extreme, both speed and volume can drop to zero.	1.01+

/a/ Capacity is defined as Level of Service E.

SOURCE: Assembled by ESA from information in Highway Research Board, 1965, Highway Capacity Manual, Special Report 87

APPENDIX E: AIR QUALITY

TABLE E-1: SAN FRANCISCO AIR POLLUTANT SUMMARY 1981-1983

STATION: 900 23rd Street, San Francisco

<u>POLLUTANT:</u>	<u>STANDARD</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
OZONE (O₃) (Oxidant)				
1-hour concentration (ppm /a/)				
Highest hourly average	0.10/b/ 0.12 /c/	0.07	0.08	0.13
Number of excesses of state standard		0	0	1
Expected Annual Excess (national)/d/		0.0	0.0	0.3
CARBON MONOXIDE (CO)				
1-hour concentration (ppm)				
Highest hourly average	20 /b,e/	8	12	7
Number of excesses of standard		0	0	0
8-hour concentration (ppm)				
Highest 8-hour average	9 /b,c/	5.3	9.1	5.1
Number of excesses of standard		0	1	0
TOTAL SUSPENDED PARTICULATE (TSP)				
24-hour concentration (ug/m ³)/a/				
Highest 24-hour average	100 /b,f/	103	126	117
Number of excesses of standard/g/		1	3	4
Annual concentration (ug/m ³)				
Annual Geometric Mean	60 /b,f/	56	57	55
Annual excess of standard		No	No	No
LEAD (Pb)				
30-day concentration (ug/m ³)				
Highest 30-day average	1.5 /b/	0.6	0.7	0.4
Number of excesses of standard		0	0	0
NITROGEN DIOXIDE (NO₂)				
1-hour concentration (ppm)				
Highest hourly average	0.25 /b/	0.11	0.13	0.13
Number of excesses of standard		0	0	0
SULFUR DIOXIDE (SO₂)				
24-hour concentration (ppm)				
Highest 24-hour average	0.05 /b/	0.016	0.012	0.018
Number of excesses of standard/g,h/		0	0	0

/a/ ppm: parts per million. ug/m³: micrograms per cubic meter.

/b/ State standard, not to be equaled or exceeded, except for CO standards, which are not to be exceeded.

/c/ National standard, not to be exceeded more than once per year, except for annual standards, which are not to be exceeded.

(Continued)

TABLE E-1: SAN FRANCISCO AIR POLLUTANT SUMMARY 1981-1983 (Continued)

/d/ Expected Annual Excess is a three-year average of annual excesses of the national standard.

/e/ The state one-hour CO standard was revised from 35 ppm to 20 ppm in January 1983. The national one-hour standard remains 35 ppm.

/f/ CARB has redefined the state particulate standard to apply to "inhalable" particulates only (i.e., those which have a diameter less than ten microns). The new standards are 50 ug/m³ for 24-hour averages and 30 ug/m³ for the annual geometric mean. No data is currently available on the particle size distribution of the TSP sampled at the San Francisco monitoring station. According to CARB, however, the new standards are "reasonably equivalent" to the old standards shown in the table above.

/g/ Number of observed excess days (measurements taken once every six days).

/h/ Exceeding the SO₂ standard is a violation only if a concurrent excess of the state ozone or TSP standards occurs at the same station. Otherwise, the national standard of 0.14 ppm applies.

SOURCE: BAAQMD, 1981 - 1983, Air Quality in the San Francisco Bay Area; and CARB, 1981 - 1983, California Air Quality Data.

APPENDIX F: ENERGY
(Environmental Science Associates)

Energy Policy

California Administrative Code Title 24 (Energy Building Regulations for New Residential and Nonresidential Buildings) standards apply to all new construction initiated in California after July 1, 1978. Enacted at the state level to answer public concern over real energy shortages and rising energy prices, the law is enforced at the local level through the building permit required for all construction. Title 24 provides two methods of compliance: prescriptive and performance standards. Prescriptive standards consist of required design features that ensure a minimum level of energy efficiency, while performance standards consist of allowable energy budgets that, if met through innovative building and equipment design, exempt the building from some of the prescriptive requirements. Before a building permit can be issued, a licensed engineer must certify the building's compliance with Title 24. If local governments fail to enforce the Title 24 regulations properly, the State may, after proper notice, take enforcement action.

For each nonresidential building, Title 24 performance standards set the following maximum annual allowable energy consumption budgets in Btu per gross sq. ft. of floor area which is mechanically heated or cooled

Offices (heated and cooled)	126,000
Offices (heated only)	124,000
Retail	180,000
Restaurants	131,000

Section 31.26(e), Chapter 3, San Francisco City Administrative Code. The Code requires that the following information about the energy performance of a project be provided in each environmental impact report prepared by the City: connected electrical load, electricity and fossil fuel consumption, and building energy budget. A discussion of measures to mitigate energy consumption is also required.

Citizens' Energy Policy Advisory Committee (CEPAC). Pursuant to a resolution of the Board of Supervisors, the Citizens' Energy Policy Advisory Committee was appointed by the Mayor in 1981 to study energy-related problems and opportunities in the City, and to make recommendations concerning energy conservation for the entire city.

The second, and final, report of CEPAC contains recommendations for energy conservation for the residential, commercial, and industrial sectors, which account for about 95% of the conventional energy supplies consumed in San Francisco each year. Many of CEPAC's recommendations have been adopted by the City in the Energy Element of the Comprehensive plan.

Energy Element, San Francisco Comprehensive Plan, July 3, 1982. This Plan contains policies to:

- assure reliable and affordable energy supplies in the City;
- improve the City's ability to respond to a fuel or power emergency
- reduce building energy consumption;
- increase energy efficiency of transportation; and

TABLE F-1: APPLICABLE ENERGY CONSERVATION PLANS AND POLICIES

Objective 2: reduce energy consumption for existing housing and increase the energy efficiency of new housing

<u>Policy</u>	<u>Project Compliance Status</u>
<u>2.2:</u> Encourage building design and orientation to minimize energy consumption.	Building design and orientation are determined by several considerations, including energy conservation.
<u>2.3:</u> Encourage use of energy conserving appliances and lighting.	The project sponsor would install energy efficient appliances as required by Title 24, California Administrative Code.
<u>2.4:</u> Discourage use of master metering and foster conversion to individual metering.	Residential units would be individually metered. Office space would likely be master metered.

Objective 3: Reduce consumption in the non-residential sector by improving energy management practices and raising building efficiency standards.

<u>Policy</u>	<u>Project Compliance Status</u>
<u>3.2:</u> For large scale projects, encourage cogeneration or connection to district heating.	No district heating system is available in the project area; the project would not include cogeneration.

Objective 4: Increase the energy efficiency of transportation

<u>Policy</u>	<u>Project Compliance Status</u>
<u>4.1:</u> Promote alternatives to motor vehicle use.	The project would not be convenient to public transit, unless proposed expansion to the site of Muni and SamTrans service is implemented.
<u>4.2:</u> Promote a land use pattern which reduces the distance between working, shopping, and living areas.	The project would reduce distances between living, working, and shopping areas for some project residents. The project site is remote from the downtown core, and from other shopping areas in the City.

SOURCE: City of San Francisco and Environmental Science Associates, Inc.

- increase use of alternative energy technologies and renewable energy sources.

ENERGY CONSERVATION FEATURES

Prior to issuance of a building permit, the Department of City Planning could require, as a condition of project approval, a report containing an assessment of the cost effectiveness of the energy conservation measures listed below. For measures which would not be included in the project, the report would state reasons for rejection.

- 1) passive solar energy design;
- 2) thermal buffers along north ends of buildings to reduce interior heat loss;
- 3) increase in natural interior illumination (daylighting) through atriums, skylights, etc.;
- 4) exterior shading devices, such as horizontal overhangs on south facing windows -- these devices may also increase air circulation;
- 5) heat reflective glass for all windows except north-facing windows;
- 6) economizer cycle (which increases use of outside air) in air conditioning systems;
- 7) alternates to air conditioning, including natural ventilation;
- 8) computer monitoring systems for HVAC and lighting;
- 9) alternative energy systems for hot water;
- 10) heat recovery systems.

CUMULATIVE ENERGY ANALYSIS

The project would be completed and occupied in 1996; the cumulative case for this project would include all buildings existing, approved, or under construction in San Francisco that could reasonably be expected to be occupied by 1996. This cumulative case has been addressed in past EIRs via a list-based method; the City recently completed a master EIR for the downtown C-3 District, the Downtown Plan EIR, that addresses cumulative impacts via a development-potential method. This Master EIR contains City-wide estimates of future energy consumption for office development, which would be applicable to this project.

The Department of City Planning predicts future power consumption, based on the electricity use of 18 recently constructed buildings, to be about 18 kWh/sq. ft.-year, including the basic power consumption of the building core (air conditioning, cooling, mechanical, and lighting loads) as well as demand from use of office appliances (copiers, computers, word processors, typewriters) that are in use the entire work day./1/ Yearly estimated electricity consumption for the projected 19 million sq. ft. of additional office space at the time of buildout of the March 10, 1984, list of projected cumulative office development in San Francisco (primarily in the downtown area) would be approximately 340 million kWh of electricity per year. Previous electricity consumption estimates in EIRs often did not include the total electricity demands of office equipment./2/

PG&E, in examining its ten-year load growth projections for San Francisco, believes that growth rates of net new office space will diminish.^{/3/} PG&E's analysis of a typical office building yielded an annual electricity consumption estimate of about 17 kWh/sq. ft., which agrees with the City's estimate within the limits of estimation methods. Based on these figures, total increases in energy demand over the next decade would be about 200 million kWh of electricity per year, or less than half the demand projected using the cumulative list. The lower PG&E prediction is largely due to its lower estimate of future development.

Projections of city-wide energy consumption discussed in the Downtown Plan Draft EIR indicate an increase in electricity consumption of about 14%, to about 4.2 billion kWh, between 1984 and 1990 from all new development. Between 1990 and 2000, electricity consumption rates would increase by about 19%, to about 5.0 billion kWh.^{/4/}

Natural gas consumption for new office development would be less than current demand, which includes consumption by older, less energy-efficient buildings. The Department of City Planning estimates that natural gas use by new buildings in the year 2000 would be 11 cu. ft./sq. ft.-yr.^{/1/} The City Planning Department further estimates that, between 1984 and 1990, gas consumption will grow by 700 million cu. ft. per year. PG&E is assessing projected demands for San Francisco; these will be included in a report to be released later this year.

PG&E plans to meet increased San Francisco energy demands to the year 2000 are discussed on pp. IV.G.12-14 of the Downtown Plan Draft EIR, which are hereby incorporated by reference.

NOTES - Cumulative Energy Analysis

/1/ City and County of San Francisco, 1984, Downtown Plan EIR, Appendix N, Note 3, p. N.8.

/2/ The Title 24 energy modeling typically includes 0.5 watts/sq. ft. of receptacle loads to account for minimal use of office appliances.

/3/ Ken Austin, Commercial-Industrial Marketing Supervisor, Pacific Gas and Electric Company, letter of March 23, 1984. This letter is available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., 5th floor, San Francisco; and City and County of San Francisco, 1984, Downtown Plan EIR, pp. IV.G.1 - IV.G.17.

/4/ City and County of San Francisco, 1984, Downtown Plan EIR, pp. VII.G.1 - VII.G.4.

APPENDIX G: Preliminary Landscaping Concept

The following is a preliminary list of plants selected for the project site by the sponsor's Landscape Architect, Sara Liss-Katz of Helmuth, Obata, and Kassabaum.

TREES

<u>Arbutus menziesii</u>	madrone
<u>Cupressus macrocarpa</u>	Monterey cypress
<u>Cupressus sargentii</u>	Sargent cypress
<u>Eucalyptus spp.*</u>	eucalyptus
<u>Quercus agrifolia</u>	coast live oak
<u>Quercus wislizenii</u>	interior live oak
<u>Pinus attenuata</u>	knobcone pine
<u>Pinus muricata</u>	Bishop pine
<u>Pinus sabiniana</u>	digger pine

* Except blue-gum eucalyptus (E. globulus)

SHRUBS

<u>Acacia verticillata</u>	acacia
<u>Arctostaphylos franciscani*</u>	San Francisco manzanita
<u>Arctostaphylos manzanita*</u>	manzanita
<u>Arctostaphylos montana*</u>	manzanita
<u>Arctostaphylos obispoensis*</u>	manzanita
<u>Arctostaphylos pungens ravenii*</u>	manzanita
<u>Ceanothus sp.</u>	<u>var.</u> "Ray Hartman"
<u>Ceanothus cuneatus*</u>	common buck brush
<u>Ceanothus jepsonii*</u>	musk bush
<u>Ceanothus pumilus*</u>	wild lilac
<u>Ceanothus thyrsiflorus</u>	wild lilac
<u>Fremontodendron spp.*</u>	
<u>Heteromeles arbutifolia</u>	toyon
<u>Quercus durata</u>	leather oak
<u>Prunus ilicifolia</u>	hollyleaf cherry
<u>Rhamnus spp.</u>	buckthorn
<u>Rhododendron occidentale*</u>	western azalea
<u>Rhus spp.</u>	sumac
<u>Ribes spp.</u>	gooseberry
<u>Romneya spp.</u>	matilija poppy
<u>Rosa californica</u>	wild rose

* Shrubs suitable for serpentine soils

CASCADING PLANTS

<u>Baccharis pilularis</u>	dwarf coyote bush
<u>Ceanothus griseus horizontalis</u>	Carmel creeper
<u>Cistus spp.</u>	rockrose
<u>Eriogonum spp.</u>	buckwheat
<u>Hedera canariensis</u>	Algerian ivy
<u>Lupinus spp.</u>	lupine (perennial)
<u>Rosmarinus officinalis</u>	rosemary
<u>Rubus spp.</u>	blackberry
<u>Salvia spp.</u>	sage

Plants for developed areas would include street trees, smaller plaza trees, groundcovers cascading down building terraces, and tree and shrub hedges. Surface parking for OB 3 would be landscaped in a manner similar to that in the parking areas for OB 1 and OB 2. The following plant list provides a variety of plants that would be used at the Executive Park site:

STREET TREES

Eucalyptus spp.

Platanus acerifolia

Acacia melanoxylon

eucalyptus

London plane tree

black acacia

PLAZA TREES

Ficus nidita

Eucalyptus ficifolia

Pittosporum undulatum

Prunus blireiana olinerana

Myoporum laetum

Indian laurel

red flowering gum

Victorian box

flowering plum

Myoporum

GROUND COVER

Hedera canariensis

Hedera helix

Osteospermum fruticosum

Graminae spp.

Ceanothus griseus horizontalis

Algerian ivy

English ivy

African daisy

lawn grass

Carmel creeper

APPENDIX H: EMPLOYMENT, HOUSING AND FISCAL FACTORS
(Environmental Science Associates)

TABLE H-1: DISTRIBUTION OF HOTEL OCCUPANTS' EXPENDITURES/a/

	<u>Percent</u>	<u>Dollars Spent/b/ (in millions)</u>
Restaurants Outside of Hotel	39.0%	\$3.858
Retail Stores	28.8	2.849
Local Transportation	5.1	0.505
Sightseeing	5.1	0.505
Entertainment	10.2	1.009
Auto: Oil, Gasoline, Service	3.4	0.336
Other Items	<u>8.4</u>	<u>0.831</u>
TOTAL	100.0%	\$9.893

/a/ Based on city-wide distribution of 1983 combined tourism expenditures prepared by Economics Research Associates, San Francisco.

/b/ Dollars spent based on expenditures of \$175 per party per day in 1983 and the fact that about 59% of expenditures occur outside the hotel, from the above source.

SOURCE: Environmental Science Associates, Inc.

TABLE H-2: DISTRIBUTION OF HOTEL ROOM TAX REVENUES FROM THE PROJECT (1984 DOLLARS)/a/

	<u>Percent/b/</u>	<u>Revenues/c/</u>
City's General Fund	17.95%	\$100,600
Moscone Convention Center Construction	41.03	230,000
Candlestick Park Bonded Indebtedness	5.11	28,600
Low-income Housing in Yerba Buena Center Redevelopment Area	5.11	28,600
Maintenance of Performing Arts - War Memorial Fund	6.97	39,000
Convention Facilities Fund	13.98	78,400
Publicity and Advertising Fund	9.85	55,200
	<hr/>	<hr/>
	100.0%	\$560,400

/a/ Based on \$5.75 million in annual hotel room sales and a hotel room tax rate of 9.75%.

/b/ Kim Fowler, Assistant Administrator, Hotel Tax Fund, City and County of San Francisco, telephone conversation, July 20, 1984.

/c/ Revenues rounded to the nearest \$100. Total may not add due to rounding.

SOURCE: Campeau Corporation and Environmental Science Associates, Inc.

FACTORS INFLUENCING DEMAND FOR HOTEL ROOMS

Many factors influence the demand for hotel rooms. The health of the national economy is an important predictor of domestic tourists, but other factors such as air fares and hotel labor disputes have affected the number of visitors. The international economy, especially the exchange rate of foreign currencies relative to the American dollar, affects the number of foreign visitors, who were about 35% of all pleasure travelers in San Francisco in 1980./1/ The number of convention and business visitors also affects the demand for hotel lodging.

All of these factors combine to make predictions of hotel room demand uncertain. One public accounting firm estimates that the demand for hotel rooms in San Francisco will increase at an average annual noncompounded rate of 2.6% for quality hotel rooms between 1981 and 1989./2/ The demand for hotel rooms near San Francisco Airport has grown at about 4 to 5% in 1981 and 1982./3/ One of the growth factors cited is the opening of George R. Moscone Convention Center, which will enable the City to attract many of the larger conventions that have gone to other cities because San Francisco lacked adequate facilities. Since major-convention organizers plan their events five to seven years in advance, the full impact of Moscone Center will not occur until 1986, when convention delegates staying in San Francisco hotels are projected to be about 1,000,000 per year./4/

It is not known whether future demand will be sufficient for the hotel to achieve profitable occupancy. A decline in the tourism business in 1981 and the summer of 1982 resulted in lower average occupancy rates than in 1980./2/ With the increasing supply of hotel rooms resulting from hotels that are proposed and under construction, an oversupply of hotel rooms in San Francisco and San Mateo Counties is possible. The likelihood of this occurrence is not possible to forecast because of the uncertainty of future economic conditions.

NOTES - Factors Influencing Hotel Demand

/1/ San Francisco Convention and Visitors Bureau, 1980 Annual Report.

/2/ Kirke Wrench, CPA Supervisor, Pannell, Kerr, Forster (Certified Public Accountants), telephone conversation, November 15, 1982.

/3/ John Steen, Executive Director, San Mateo County Convention and Visitors Bureau, telephone conversation, January 12, 1983.

/4/ Dale Hess, General Manager, San Francisco Convention and Visitors Bureau, telephone conversation, November 27, 1981.

TABLE H-3: SUMMARY OF 50 PROJECTS ALONG ROUTE 101 IN SAN MATEO COUNTY BY STATUS

<u>Project Status</u>	<u>Office/Industrial Space (Floor Area in Sq. Ft.)</u>	<u>Housing Units</u>	<u>Hotel Rooms</u>
Recently Completed or Under Construction	6,317,321	-----	1,940
Approved	6,184,038	5,020	1,150
Awaiting Final EIR Certification	1,150,000	-----	1,721
DEIR Completed	5,084,786	2,263	1,000
Proposed	<u>2,538,000</u>	<u>-----</u>	<u>-----</u>
TOTAL	21,274,145	7,283	5,811

SOURCE: Metropolitan Transportation Commission, Travel Impacts of Proposed Development on the Peninsula Along Route 101, December 3, 1982.
